WEBVTT

NOTE duration: ”00:09:36.896”

NOTE Confidence: 0.8471719

00:00:00.080 --> 00:00:01.540 My name is Kamlakram Baripuri.

NOTE Confidence: 0.8471719

00:00:01.839 --> 00:00:03.840 I manage the Irvator shared

NOTE Confidence: 0.8471719

00:00:03.840 --> 00:00:05.920 resource, resource center here. We're

NOTE Confidence: 0.8471719

00:00:05.920 --> 00:00:06.960 part of the cancer center

NOTE Confidence: 0.8471719

00:00:06.960 --> 00:00:07.359 support,

NOTE Confidence: 0.77815753

00:00:07.839 --> 00:00:08.820 grant share resources.

NOTE Confidence: 0.85408527

00:00:12.240 --> 00:00:13.599 ISR is supervised by doctor

NOTE Confidence: 0.85408527

00:00:13.599 --> 00:00:14.099 Stern,

NOTE Confidence: 0.9526096

00:00:14.594 --> 00:00:16.035 and reviewed annually by the

NOTE Confidence: 0.9526096

00:00:16.035 --> 00:00:18.295 YCC shared, oversight committee.

NOTE Confidence: 0.8919123

00:00:20.914 --> 00:00:22.355 The shared resource is managed

NOTE Confidence: 0.8919123

00:00:22.355 --> 00:00:23.954 by doc director doctor Jay

NOTE Confidence: 0.8919123

00:00:23.954 --> 00:00:24.454 Chen.

NOTE Confidence: 0.98567706

00:00:25.634 --> 00:00:26.614 He is the

NOTE Confidence: 0.9567751

00:00:26.940 --> 00:00:28.300 director of ISR. He's a

NOTE Confidence: 0.9567751

00:00:28.300 --> 00:00:30.140 professor of therapeutic radiology, member

NOTE Confidence: 0.9567751

00:00:30.140 --> 00:00:31.440 of the Yale Cancer Center,

NOTE Confidence: 0.9567751

00:00:31.500 --> 00:00:32.860 and vice chair for the

NOTE Confidence: 0.9567751

00:00:32.860 --> 00:00:34.620 physics research and education in

NOTE Confidence: 0.9567751

00:00:34.620 --> 00:00:35.600 therapeutic radiology.

NOTE Confidence: 0.93460363

00:00:36.220 --> 00:00:37.100 He has about three years

NOTE Confidence: 0.93460363

00:00:37.100 --> 00:00:38.800 of experience in radiation physics,

NOTE Confidence: 0.93460363

00:00:38.860 --> 00:00:40.560 and then he's an in

NOTE Confidence: 0.93460363

00:00:40.620 --> 00:00:42.640 house expert on gamma and

NOTE Confidence: 0.93460363

00:00:42.675 --> 00:00:43.335 X rays.

NOTE Confidence: 0.9896118

00:00:45.475 --> 00:00:46.434 He's also a fellow of

NOTE Confidence: 0.9896118

00:00:46.434 --> 00:00:48.055 the American Association of Physicists,

NOTE Confidence: 0.81457114

00:00:48.835 --> 00:00:50.114 in medicine and the chief

NOTE Confidence: 0.81457114

00:00:50.114 --> 00:00:51.895 physicist of Smile Local Hospital

NOTE Confidence: 0.81457114

00:00:52.195 --> 00:00:54.375 at Yale New Haven Hospital.

NOTE Confidence: 0.9995117

00:00:55.380 --> 00:00:56.120 So our

NOTE Confidence: 0.9322665

00:00:56.660 --> 00:00:57.620 mission of the shared resource

NOTE Confidence: 0.9322665

00:00:57.700 --> 00:00:59.300 irradiated shared resource is to

NOTE Confidence: 0.9322665

00:00:59.300 --> 00:01:01.059 provide easy and reliable access

NOTE Confidence: 0.9322665

00:01:01.059 --> 00:01:02.180 to cutting edge gamma and

NOTE Confidence: 0.9322665

00:01:02.180 --> 00:01:03.559 x-ray irradiation technologies,

NOTE Confidence: 0.9873657

00:01:04.100 --> 00:01:05.800 services, and scientific consultations

NOTE Confidence: 0.9850377

00:01:06.420 --> 00:01:07.860 for all the cancer researchers

NOTE Confidence: 0.9850377

00:01:07.860 --> 00:01:08.600 at Yale.

NOTE Confidence: 0.97245455

00:01:10.295 --> 00:01:11.655 So we have four objectives

NOTE Confidence: 0.97245455

00:01:11.655 --> 00:01:13.495 and aims. Aim one being

NOTE Confidence: 0.97245455

00:01:13.495 --> 00:01:15.895 providing convenient and reliable access

NOTE Confidence: 0.97245455

00:01:15.895 --> 00:01:16.694 to state of the art

NOTE Confidence: 0.97245455

00:01:16.694 --> 00:01:17.595 gamma ray and

NOTE Confidence: 0.89861387

00:01:17.975 --> 00:01:20.215 global digit, x-ray radiators with

NOTE Confidence: 0.89861387

00:01:20.215 --> 00:01:22.155 cost effective relation for all

NOTE Confidence: 0.89861387

00:01:22.215 --> 00:01:23.194 YCC members.

NOTE Confidence: 0.9685492

00:01:23.680 --> 00:01:24.959 We provide reliable access to

NOTE Confidence: 0.9685492

00:01:24.959 --> 00:01:26.479 all the radiators. We offer

NOTE Confidence: 0.9685492

00:01:26.479 --> 00:01:28.500 expert help with experimental design.

NOTE Confidence: 0.9577493

00:01:28.880 --> 00:01:30.159 We train all our users

NOTE Confidence: 0.9577493

00:01:30.159 --> 00:01:31.619 to operate the machines safely

NOTE Confidence: 0.9577493

00:01:31.840 --> 00:01:33.040 and keeping in line with

NOTE Confidence: 0.9577493

00:01:33.040 --> 00:01:33.780 EHS protocols,

NOTE Confidence: 0.9983956

00:01:34.479 --> 00:01:35.440 and we keep make sure

NOTE Confidence: 0.9983956

00:01:35.440 --> 00:01:36.400 we keep the machines running

NOTE Confidence: 0.9983956

00:01:36.400 --> 00:01:37.619 twenty four by seven.

NOTE Confidence: 0.9907552

00:01:40.704 --> 00:01:42.164 The key services of ISR,

NOTE Confidence: 0.8906521

00:01:42.465 --> 00:01:44.145 we provide radiation physics and

NOTE Confidence: 0.8906521

00:01:44.145 --> 00:01:45.664 technical consultation on the best

NOTE Confidence: 0.8906521

00:01:45.664 --> 00:01:46.804 use of all the radiators.

NOTE Confidence: 0.99365234

00:01:47.265 --> 00:01:47.924 We provide

NOTE Confidence: 0.83777434

00:01:48.225 --> 00:01:49.905 periodic quality assurance test to

NOTE Confidence: 0.83777434

00:01:49.905 --> 00:01:51.744 ensure accurate dose deliveries delivered

NOTE Confidence: 0.83777434

00:01:51.744 --> 00:01:52.564 by all the radiators.

NOTE Confidence: 0.9919739

00:01:53.120 --> 00:01:54.400 We train our users and

NOTE Confidence: 0.9919739

00:01:54.400 --> 00:01:55.300 help with compliance.

NOTE Confidence: 0.94294435

00:01:56.240 --> 00:01:57.920 We also escort users if

NOTE Confidence: 0.94294435

00:01:57.920 --> 00:01:59.220 they use a common radiator,

NOTE Confidence: 0.9348668

00:01:59.680 --> 00:02:00.640 then if they don't wanna

NOTE Confidence: 0.9348668

00:02:00.640 --> 00:02:02.080 go any background checks, which

NOTE Confidence: 0.9348668

00:02:02.080 --> 00:02:03.140 I'll talk about later.

NOTE Confidence: 0.8762207

00:02:03.840 --> 00:02:04.960 We also make sure we

NOTE Confidence: 0.8762207

00:02:04.960 --> 00:02:06.240 maintain our latest all year

NOTE Confidence: 0.8762207

00:02:06.240 --> 00:02:06.740 on.

NOTE Confidence: 0.9394287

00:02:07.125 --> 00:02:08.805 We do QH every month,

NOTE Confidence: 0.9394287

00:02:09.044 --> 00:02:11.065 every week, quarterly, and annually.

NOTE Confidence: 0.94438475

00:02:14.245 --> 00:02:16.185 So, we have, different equipment.

NOTE Confidence: 0.8837716

00:02:16.965 --> 00:02:18.965 We have a CCM gamma

NOTE Confidence: 0.8837716

00:02:18.965 --> 00:02:19.785 ray radiator.

NOTE Confidence: 0.8415053

00:02:20.430 --> 00:02:21.550 We have four precision x

NOTE Confidence: 0.8415053

00:02:21.550 --> 00:02:23.169 vat three twenty kilowatts irradiators

NOTE Confidence: 0.8415053

00:02:23.230 --> 00:02:23.970 across campus.

NOTE Confidence: 0.8710655

00:02:24.669 --> 00:02:25.970 We have our newest addition,

NOTE Confidence: 0.8710655

00:02:26.190 --> 00:02:28.030 the SARP, the small animal

NOTE Confidence: 0.8710655

00:02:28.030 --> 00:02:30.370 radiation research platform, MIDSGARRE accelerator,

NOTE Confidence: 0.8477958

00:02:30.990 --> 00:02:32.110 and we also have relation

NOTE Confidence: 0.8477958

00:02:32.110 --> 00:02:32.690 to equipment.

NOTE Confidence: 0.99934894

00:02:33.705 --> 00:02:34.205 Briefly,

NOTE Confidence: 0.86153156

00:02:34.905 --> 00:02:35.944 CGM one hundred and thirty

NOTE Confidence: 0.86153156

00:02:35.944 --> 00:02:37.325 seven gamma radiator provides,

NOTE Confidence: 0.9935303

00:02:37.705 --> 00:02:39.245 high penetration gamma rays,

NOTE Confidence: 0.9477132

00:02:39.785 --> 00:02:40.985 for whole body or cell

NOTE Confidence: 0.9477132

00:02:40.985 --> 00:02:41.485 variations.

NOTE Confidence: 0.9068942

00:02:42.345 --> 00:02:43.944 The Precision x-ray three twenty's,

NOTE Confidence: 0.9068942

00:02:43.944 --> 00:02:45.544 they deliver tunable kV x

NOTE Confidence: 0.9068942

00:02:45.544 --> 00:02:46.985 rays for cell tissue and

NOTE Confidence: 0.9068942

00:02:46.985 --> 00:02:49.020 small animal radiation with controlled

NOTE Confidence: 0.9068942

00:02:49.020 --> 00:02:50.620 dose rates. The SARP,

NOTE Confidence: 0.92736816

00:02:51.020 --> 00:02:53.020 enables a CT guided highly

NOTE Confidence: 0.92736816

00:02:53.020 --> 00:02:54.780 targeted radiation for precise small

NOTE Confidence: 0.92736816

00:02:54.780 --> 00:02:55.680 animal research.

NOTE Confidence: 0.9573317

00:02:56.460 --> 00:02:57.919 We also have radiation dosimeter

NOTE Confidence: 0.9573317

00:02:57.980 --> 00:02:59.500 equipment, which support both cell

NOTE Confidence: 0.9573317

00:02:59.500 --> 00:03:00.480 and animal studies.

NOTE Confidence: 0.83113605

00:03:02.335 --> 00:03:03.215 So, this is,

NOTE Confidence: 0.84781903

00:03:03.935 --> 00:03:04.975 this is how a gamma

NOTE Confidence: 0.84781903

00:03:04.975 --> 00:03:06.275 ray data looks like.

NOTE Confidence: 0.9018085

00:03:07.295 --> 00:03:08.575 It delivers up to six

NOTE Confidence: 0.9018085

00:03:08.575 --> 00:03:09.695 six and then six hundred

NOTE Confidence: 0.9018085

00:03:09.695 --> 00:03:11.395 sixty two kV gamma rays.

NOTE Confidence: 0.9018085

00:03:11.455 --> 00:03:12.975 It supports molecular samples, cell

NOTE Confidence: 0.9018085

00:03:12.975 --> 00:03:14.495 cancers, tumor cells, and small

NOTE Confidence: 0.9018085

00:03:14.495 --> 00:03:14.995 animals.

NOTE Confidence: 0.95459515

00:03:16.150 --> 00:03:17.350 It use it's also used

NOTE Confidence: 0.95459515

00:03:17.350 --> 00:03:18.710 for wide dose rate range

NOTE Confidence: 0.95459515

00:03:18.710 --> 00:03:20.389 and flexible collimation, and it

NOTE Confidence: 0.95459515

00:03:20.389 --> 00:03:21.270 has been a core tool

NOTE Confidence: 0.95459515

00:03:21.270 --> 00:03:22.630 for many years since nineteen

NOTE Confidence: 0.95459515

00:03:22.630 --> 00:03:24.310 ninety for all many YCC

NOTE Confidence: 0.95459515

00:03:24.310 --> 00:03:24.810 studies.

NOTE Confidence: 0.92822266

00:03:26.070 --> 00:03:27.430 We will be, removing this

NOTE Confidence: 0.92822266

00:03:27.430 --> 00:03:28.470 machine in the next year

NOTE Confidence: 0.92822266

00:03:28.470 --> 00:03:29.190 as part of a two

NOTE Confidence: 0.92822266

00:03:29.190 --> 00:03:29.690 program

NOTE Confidence: 0.8663248

00:03:30.115 --> 00:03:31.155 to play and replacing this

NOTE Confidence: 0.8663248

00:03:31.155 --> 00:03:32.455 with a new X-ray retail.

NOTE Confidence: 0.82490236

00:03:34.835 --> 00:03:36.135 So we have a four

NOTE Confidence: 0.99820966

00:03:37.075 --> 00:03:38.775 X-ray machines across campus.

NOTE Confidence: 0.9199728

00:03:39.795 --> 00:03:41.235 These are X-ray three twenties,

NOTE Confidence: 0.9199728

00:03:41.395 --> 00:03:42.295 made by Precision.

NOTE Confidence: 0.86588395

00:03:42.650 --> 00:03:43.930 They're used for rating cell

NOTE Confidence: 0.86588395

00:03:43.930 --> 00:03:45.850 cultures, beta layers, bacteria, insects,

NOTE Confidence: 0.86588395

00:03:45.850 --> 00:03:47.130 and small and small animals

NOTE Confidence: 0.86588395

00:03:47.130 --> 00:03:48.910 like rodents, mice, and rats.

NOTE Confidence: 0.86588395

00:03:49.130 --> 00:03:50.650 It's supposed both targeted and

NOTE Confidence: 0.86588395

00:03:50.650 --> 00:03:51.630 whole body radiation,

NOTE Confidence: 0.95388997

00:03:52.490 --> 00:03:53.850 used for studies in tumor

NOTE Confidence: 0.95388997

00:03:53.850 --> 00:03:55.710 and normal tissue response, hematopoietic

NOTE Confidence: 0.6673584

00:03:56.330 --> 00:03:58.565 depletion, immunotherapy relation with energy

NOTE Confidence: 0.6673584

00:03:58.565 --> 00:03:59.065 research.

NOTE Confidence: 0.9197103

00:03:59.444 --> 00:04:00.724 The output contain, it goes

NOTE Confidence: 0.9197103

00:04:00.724 --> 00:04:01.605 up to three grades per

NOTE Confidence: 0.9197103

00:04:01.605 --> 00:04:03.065 minute at fifty centimeters SSD,

NOTE Confidence: 0.9157986

00:04:03.925 --> 00:04:05.685 distributed across four medical campus

NOTE Confidence: 0.9157986

00:04:05.685 --> 00:04:07.305 buildings for community access.

NOTE Confidence: 0.936975

00:04:07.925 --> 00:04:09.205 So we have four x-ray

NOTE Confidence: 0.936975

00:04:09.205 --> 00:04:10.620 machines, one located in TAC,

NOTE Confidence: 0.936975

00:04:10.700 --> 00:04:12.459 one located in Amistad, one

NOTE Confidence: 0.936975

00:04:12.459 --> 00:04:13.900 located in George, and another

NOTE Confidence: 0.936975

00:04:13.900 --> 00:04:15.580 one located in LCI building.

NOTE Confidence: 0.936975

00:04:15.580 --> 00:04:16.460 And this is a gamma

NOTE Confidence: 0.936975

00:04:16.460 --> 00:04:16.960 radiator.

NOTE Confidence: 0.875989

00:04:18.699 --> 00:04:20.380 So our newest edition is

NOTE Confidence: 0.875989

00:04:20.380 --> 00:04:21.660 called the SARP, small animal

NOTE Confidence: 0.875989

00:04:21.660 --> 00:04:22.960 radiation research platform.

NOTE Confidence: 0.9417073

00:04:23.295 --> 00:04:25.555 It's an advanced multifunctional accelerator

NOTE Confidence: 0.9417073

00:04:25.615 --> 00:04:27.875 designed specifically for animal research.

NOTE Confidence: 0.9666457

00:04:28.175 --> 00:04:28.895 So what it is is

NOTE Confidence: 0.9666457

00:04:28.895 --> 00:04:30.095 a two twenty five kilowatt

NOTE Confidence: 0.9666457

00:04:30.095 --> 00:04:32.015 accelerator designed specifically for high

NOTE Confidence: 0.9666457

00:04:32.015 --> 00:04:33.775 precision irradiation of mice and

NOTE Confidence: 0.9666457

00:04:33.775 --> 00:04:34.275 rats.

NOTE Confidence: 0.97214764

00:04:34.654 --> 00:04:35.775 The key features of this

NOTE Confidence: 0.97214764

00:04:35.775 --> 00:04:36.815 machine would be cone beam

NOTE Confidence: 0.97214764

00:04:36.815 --> 00:04:37.715 CT imaging,

NOTE Confidence: 0.9329649

00:04:38.020 --> 00:04:39.479 a three d treatment planning

NOTE Confidence: 0.9329649

00:04:39.539 --> 00:04:40.819 just like a miniature clinical

NOTE Confidence: 0.9329649

00:04:40.819 --> 00:04:42.659 relation therapy planning system. It

NOTE Confidence: 0.9329649

00:04:42.659 --> 00:04:43.860 has a mobile gantry with

NOTE Confidence: 0.9329649

00:04:43.860 --> 00:04:45.620 a robotic stage so beams

NOTE Confidence: 0.9329649

00:04:45.620 --> 00:04:46.979 can come from many angles

NOTE Confidence: 0.9329649

00:04:46.979 --> 00:04:48.039 for precise targeting.

NOTE Confidence: 0.7262207

00:04:49.219 --> 00:04:50.680 It also has high sorry

NOTE Confidence: 0.9259033

00:04:51.219 --> 00:04:52.279 it has a high reproducibility.

NOTE Confidence: 0.87871635

00:04:55.035 --> 00:04:56.154 So why it matters, it

NOTE Confidence: 0.87871635

00:04:56.154 --> 00:04:57.835 it allows focal degradation of

NOTE Confidence: 0.87871635

00:04:57.914 --> 00:04:59.435 instead of whole body exposure

NOTE Confidence: 0.87871635

00:04:59.435 --> 00:05:00.815 so you could target precisely

NOTE Confidence: 0.87871635

00:05:00.955 --> 00:05:02.074 or what organ you wanna

NOTE Confidence: 0.87871635

00:05:02.074 --> 00:05:02.815 treat with.

NOTE Confidence: 0.9563563

00:05:03.194 --> 00:05:04.794 It ex reduces normal tissue

NOTE Confidence: 0.9563563

00:05:04.794 --> 00:05:06.574 injury by sparing healthy areas.

NOTE Confidence: 0.9563563

00:05:06.690 --> 00:05:08.370 It's essential for studying tumor

NOTE Confidence: 0.9563563

00:05:08.370 --> 00:05:09.270 response, immunology,

NOTE Confidence: 0.9699707

00:05:09.570 --> 00:05:11.010 DNA repair, and normal tissue

NOTE Confidence: 0.9699707

00:05:11.010 --> 00:05:11.510 toxicity.

NOTE Confidence: 0.9086052

00:05:12.050 --> 00:05:13.250 So in a simple summary,

NOTE Confidence: 0.9086052

00:05:13.250 --> 00:05:14.450 it's a clinical reason that

NOTE Confidence: 0.9086052

00:05:14.450 --> 00:05:15.730 we device, but scaled down

NOTE Confidence: 0.9086052

00:05:15.730 --> 00:05:16.390 for mice.

NOTE Confidence: 0.9969657

00:05:17.810 --> 00:05:18.610 So this is how it

NOTE Confidence: 0.9969657

00:05:18.610 --> 00:05:19.350 looks like.

NOTE Confidence: 0.9758113

00:05:23.025 --> 00:05:24.225 So the mouse goes on

NOTE Confidence: 0.9758113

00:05:24.225 --> 00:05:25.665 the bed over here. There's

NOTE Confidence: 0.9758113

00:05:25.665 --> 00:05:26.645 a CT detector.

NOTE Confidence: 0.89942276

00:05:27.025 --> 00:05:28.305 The camera takes a three

NOTE Confidence: 0.89942276

00:05:28.305 --> 00:05:28.885 d image.

NOTE Confidence: 0.96207684

00:05:29.825 --> 00:05:30.865 Your X-ray head is on

NOTE Confidence: 0.96207684

00:05:30.865 --> 00:05:31.525 the top.

NOTE Confidence: 0.9661255

00:05:31.825 --> 00:05:33.045 We have a collimator.

NOTE Confidence: 0.95079273

00:05:33.730 --> 00:05:34.770 You can choose your own.

NOTE Confidence: 0.95079273

00:05:35.010 --> 00:05:35.890 We have we have five

NOTE Confidence: 0.95079273

00:05:35.890 --> 00:05:37.490 different collimators of various tumor

NOTE Confidence: 0.95079273

00:05:37.490 --> 00:05:38.770 sizes. You can choose your

NOTE Confidence: 0.95079273

00:05:38.770 --> 00:05:39.990 collimator and,

NOTE Confidence: 0.94853866

00:05:40.529 --> 00:05:42.290 treat them, through the mouse

NOTE Confidence: 0.94853866

00:05:42.290 --> 00:05:43.490 or the rat with whatever

NOTE Confidence: 0.94853866

00:05:43.490 --> 00:05:44.930 tumor it has. So this

NOTE Confidence: 0.94853866

00:05:44.930 --> 00:05:46.290 is a treatment time software.

NOTE Confidence: 0.94853866

00:05:46.290 --> 00:05:47.250 Here, like, I show you

NOTE Confidence: 0.94853866

00:05:47.250 --> 00:05:48.070 a lung tumor,

NOTE Confidence: 0.96791995

00:05:48.755 --> 00:05:49.555 in the lung of a

NOTE Confidence: 0.96791995

00:05:49.555 --> 00:05:51.175 mouse so you can target

NOTE Confidence: 0.8505046

00:05:52.355 --> 00:05:53.235 just a tumor in the

NOTE Confidence: 0.8505046

00:05:53.235 --> 00:05:53.735 mouse.

NOTE Confidence: 0.8803523

00:05:56.035 --> 00:05:57.075 So we also have variation

NOTE Confidence: 0.8803523

00:05:57.075 --> 00:05:59.075 dosimetry equipment. We have INGMA

NOTE Confidence: 0.8803523

00:05:59.075 --> 00:06:00.214 based absolute dosimetry.

NOTE Confidence: 0.8862974

00:06:01.170 --> 00:06:02.930 It measures absolute dose and

NOTE Confidence: 0.8862974

00:06:02.930 --> 00:06:04.790 it converts collected charge into

NOTE Confidence: 0.8862974

00:06:04.930 --> 00:06:06.130 and converts that into a

NOTE Confidence: 0.8862974

00:06:06.130 --> 00:06:07.250 citric rate. It's used to

NOTE Confidence: 0.8862974

00:06:07.250 --> 00:06:08.770 calibrate our machines and we

NOTE Confidence: 0.8862974

00:06:08.770 --> 00:06:09.890 use it for daily and

NOTE Confidence: 0.8862974

00:06:09.890 --> 00:06:10.390 monthly

NOTE Confidence: 0.88134766

00:06:10.770 --> 00:06:11.270 QAs.

NOTE Confidence: 0.9046936

00:06:11.730 --> 00:06:12.690 It's sensitive to set up

NOTE Confidence: 0.9046936

00:06:12.690 --> 00:06:13.990 an environmental corrections.

NOTE Confidence: 0.9436425

00:06:15.264 --> 00:06:16.464 We also have a EBT4

NOTE Confidence: 0.9436425

00:06:16.464 --> 00:06:18.145 filament dosimetry. It provides two

NOTE Confidence: 0.9436425

00:06:18.145 --> 00:06:19.664 d dose distribution. It's great

NOTE Confidence: 0.9436425

00:06:19.664 --> 00:06:21.585 for checking uniformity, beam profiles,

NOTE Confidence: 0.9436425

00:06:21.585 --> 00:06:22.565 and small fields.

NOTE Confidence: 0.95104265

00:06:23.025 --> 00:06:24.944 It requires scanning and calibration

NOTE Confidence: 0.95104265

00:06:24.944 --> 00:06:26.544 curve. It goes for relative

NOTE Confidence: 0.95104265

00:06:26.544 --> 00:06:27.425 dose but not for the

NOTE Confidence: 0.95104265

00:06:27.425 --> 00:06:28.324 absolute dose.

NOTE Confidence: 0.8531358

00:06:28.770 --> 00:06:29.650 We also have a t

NOTE Confidence: 0.8531358

00:06:29.650 --> 00:06:30.870 l d dosimeter system.

NOTE Confidence: 0.79847264

00:06:32.450 --> 00:06:34.310 It's useful where films or

NOTE Confidence: 0.79847264

00:06:34.529 --> 00:06:36.470 ion chambers or gaphomic films,

NOTE Confidence: 0.79847264

00:06:36.690 --> 00:06:37.410 e b d four films

NOTE Confidence: 0.79847264

00:06:37.410 --> 00:06:39.110 can go and it's

NOTE Confidence: 0.9586046

00:06:39.570 --> 00:06:40.850 measures a point dose. It's

NOTE Confidence: 0.9586046

00:06:40.850 --> 00:06:42.370 good for verification of delivered

NOTE Confidence: 0.9586046

00:06:42.370 --> 00:06:43.955 dose. We also have a

NOTE Confidence: 0.9586046

00:06:43.955 --> 00:06:45.255 flaky chemical dosimeter.

NOTE Confidence: 0.89869994

00:06:45.714 --> 00:06:46.995 It measures radiation dose, but

NOTE Confidence: 0.89869994

00:06:46.995 --> 00:06:48.035 how much they how much

NOTE Confidence: 0.89869994

00:06:48.035 --> 00:06:49.714 it oxidizes ferrous ions in

NOTE Confidence: 0.89869994

00:06:49.714 --> 00:06:51.495 a specific sulfuric acid solution.

NOTE Confidence: 0.85044754

00:06:53.235 --> 00:06:54.535 So some of our experimental

NOTE Confidence: 0.85044754

00:06:54.595 --> 00:06:56.135 setups on gamma and actuators,

NOTE Confidence: 0.8618608

00:06:56.599 --> 00:06:57.879 we have a whole mouse

NOTE Confidence: 0.8618608

00:06:57.879 --> 00:06:59.479 pie, for mouse whole body

NOTE Confidence: 0.8618608

00:06:59.479 --> 00:06:59.979 radiation.

NOTE Confidence: 0.8667864

00:07:00.360 --> 00:07:01.879 We have shields available built

NOTE Confidence: 0.8667864

00:07:01.879 --> 00:07:03.479 for a brain radiation or

NOTE Confidence: 0.8667864

00:07:03.479 --> 00:07:04.539 a flying tumor radiation.

NOTE Confidence: 0.9708158

00:07:05.240 --> 00:07:06.599 You can always do tissue

NOTE Confidence: 0.9708158

00:07:06.599 --> 00:07:08.440 culture plates and culture flask

NOTE Confidence: 0.9708158

00:07:08.440 --> 00:07:09.419 for cell radiation.

NOTE Confidence: 0.83670205

00:07:11.005 --> 00:07:12.045 We also have two years

NOTE Confidence: 0.83670205

00:07:12.045 --> 00:07:13.645 filters for harder beams and

NOTE Confidence: 0.83670205

00:07:13.645 --> 00:07:15.405 aluminum two millimeter millimeter filter

NOTE Confidence: 0.83670205

00:07:15.405 --> 00:07:16.465 for a softer beam,

NOTE Confidence: 0.9936218

00:07:17.005 --> 00:07:18.445 so we can, always use

NOTE Confidence: 0.9936218

00:07:18.445 --> 00:07:19.585 those filters too.

NOTE Confidence: 0.869751

00:07:22.285 --> 00:07:24.065 So, training and access

NOTE Confidence: 0.88570195

00:07:24.620 --> 00:07:25.740 is basically very simple. You

NOTE Confidence: 0.88570195

00:07:25.740 --> 00:07:26.620 have to do three three

NOTE Confidence: 0.88570195

00:07:26.620 --> 00:07:27.740 step three steps, get an

NOTE Confidence: 0.88570195

00:07:27.740 --> 00:07:29.660 online training with EHS, obtain

NOTE Confidence: 0.88570195

00:07:29.660 --> 00:07:30.700 a relation to submit it,

NOTE Confidence: 0.88570195

00:07:30.700 --> 00:07:31.340 fill out a form, and

NOTE Confidence: 0.88570195

00:07:31.340 --> 00:07:32.460 submit to EHS and a

NOTE Confidence: 0.88570195

00:07:32.460 --> 00:07:33.820 hands on training with me,

NOTE Confidence: 0.88570195

00:07:33.820 --> 00:07:34.780 and you would be approved

NOTE Confidence: 0.88570195

00:07:34.780 --> 00:07:35.360 to use,

NOTE Confidence: 0.9428711

00:07:35.740 --> 00:07:37.020 any of the exhibitions across

NOTE Confidence: 0.9428711

00:07:37.020 --> 00:07:37.520 campus.

NOTE Confidence: 0.8448841

00:07:40.235 --> 00:07:42.474 So same thing. Complete required

NOTE Confidence: 0.8448841

00:07:42.474 --> 00:07:43.995 acts required training and a

NOTE Confidence: 0.8448841

00:07:43.995 --> 00:07:45.275 plain relation to submit it.

NOTE Confidence: 0.8448841

00:07:45.275 --> 00:07:46.315 For a common radiator, you

NOTE Confidence: 0.8448841

00:07:46.315 --> 00:07:47.354 need to submit a background

NOTE Confidence: 0.8448841

00:07:47.354 --> 00:07:49.115 clearance form with with COVID

NOTE Confidence: 0.8448841

00:07:49.115 --> 00:07:50.555 with EHS. It takes about

NOTE Confidence: 0.8448841

00:07:50.555 --> 00:07:51.914 a while, but you don't

NOTE Confidence: 0.8448841

00:07:51.914 --> 00:07:52.634 have to wait for the

NOTE Confidence: 0.8448841

00:07:52.634 --> 00:07:53.995 background clearance. I can export

NOTE Confidence: 0.8448841

00:07:53.995 --> 00:07:55.115 escort you to the common

NOTE Confidence: 0.8448841

00:07:55.115 --> 00:07:56.710 radiator and perform your experiments

NOTE Confidence: 0.8448841

00:07:56.850 --> 00:07:57.509 for you.

NOTE Confidence: 0.96498615

00:08:00.130 --> 00:08:01.250 So all the scheduling and

NOTE Confidence: 0.96498615

00:08:01.250 --> 00:08:02.630 training is done via PPMS.

NOTE Confidence: 0.96498615

00:08:02.930 --> 00:08:04.050 I'll provide the link up

NOTE Confidence: 0.96498615

00:08:04.050 --> 00:08:04.550 here.

NOTE Confidence: 0.9749809

00:08:04.930 --> 00:08:06.370 Please access this link, and

NOTE Confidence: 0.9749809

00:08:06.370 --> 00:08:07.970 everything's up all all the

NOTE Confidence: 0.9749809

00:08:07.970 --> 00:08:09.250 information we need for training

NOTE Confidence: 0.9749809

00:08:09.250 --> 00:08:10.370 and scheduling is up on

NOTE Confidence: 0.9749809

00:08:10.370 --> 00:08:11.509 the PPMS website.

NOTE Confidence: 0.9888916

00:08:13.055 --> 00:08:13.795 So quickly,

NOTE Confidence: 0.95703125

00:08:14.175 --> 00:08:15.315 some of our research,

NOTE Confidence: 0.89369076

00:08:15.935 --> 00:08:17.055 here, we have a lung

NOTE Confidence: 0.89369076

00:08:17.055 --> 00:08:18.575 cancer presentation with doctor Hayman

NOTE Confidence: 0.89369076

00:08:18.575 --> 00:08:20.095 and doctor Contessa. So we

NOTE Confidence: 0.89369076

00:08:20.095 --> 00:08:20.895 use he they use the

NOTE Confidence: 0.89369076

00:08:20.895 --> 00:08:22.175 X-ray three twenty to deliver

NOTE Confidence: 0.89369076

00:08:22.175 --> 00:08:23.535 fractional doses for cell and

NOTE Confidence: 0.89369076

00:08:23.535 --> 00:08:24.275 mode studies.

NOTE Confidence: 0.88750976

00:08:24.895 --> 00:08:26.175 We had doctor Ryan Jensen

NOTE Confidence: 0.88750976

00:08:26.175 --> 00:08:28.080 for DNA repair. He used

NOTE Confidence: 0.88750976

00:08:28.080 --> 00:08:29.200 DNA x three twenty to

NOTE Confidence: 0.88750976

00:08:29.200 --> 00:08:30.560 induce DNA breaks to measure

NOTE Confidence: 0.88750976

00:08:30.560 --> 00:08:31.860 the RAD fifty one foci.

NOTE Confidence: 0.7609253

00:08:32.640 --> 00:08:33.700 We also have a humanized

NOTE Confidence: 0.7609253

00:08:33.840 --> 00:08:35.200 skeletal m model with doctor

NOTE Confidence: 0.7609253

00:08:35.200 --> 00:08:36.179 Flavell's lab.

NOTE Confidence: 0.83654785

00:08:36.480 --> 00:08:37.920 They use their sublethal expert

NOTE Confidence: 0.83654785

00:08:37.920 --> 00:08:38.420 conditioning

NOTE Confidence: 0.9187521

00:08:38.915 --> 00:08:40.755 for enable HSC engraftment in

NOTE Confidence: 0.9187521

00:08:40.755 --> 00:08:42.275 mice. And we also have

NOTE Confidence: 0.9187521

00:08:42.275 --> 00:08:44.355 doctor Pillai, from George billing.

NOTE Confidence: 0.9187521

00:08:44.355 --> 00:08:45.475 They use the x-ray three

NOTE Confidence: 0.9187521

00:08:45.475 --> 00:08:46.995 twenty to induce DNA damage

NOTE Confidence: 0.9187521

00:08:46.995 --> 00:08:48.535 to test synthetic lethal responses.

NOTE Confidence: 0.99853516

00:08:50.195 --> 00:08:50.695 So,

NOTE Confidence: 0.892911

00:08:51.155 --> 00:08:52.275 for the sub basically of

NOTE Confidence: 0.892911

00:08:52.275 --> 00:08:53.920 twenty twenty five, we had

NOTE Confidence: 0.892911

00:08:53.920 --> 00:08:55.200 about fifty two PIs and

NOTE Confidence: 0.892911

00:08:55.200 --> 00:08:56.480 twenty one departments that use

NOTE Confidence: 0.892911

00:08:56.480 --> 00:08:57.059 our machines.

NOTE Confidence: 0.92963517

00:08:57.440 --> 00:08:58.320 Ninety eight percent of our

NOTE Confidence: 0.92963517

00:08:58.320 --> 00:09:00.400 members are YCC members. So,

NOTE Confidence: 0.92963517

00:09:00.720 --> 00:09:01.940 we we had a user

NOTE Confidence: 0.92963517

00:09:02.000 --> 00:09:03.200 of a thousand twelve two

NOTE Confidence: 0.92963517

00:09:03.200 --> 00:09:04.480 hundred for the fiscal year

NOTE Confidence: 0.92963517

00:09:04.480 --> 00:09:05.540 twenty twenty five.

NOTE Confidence: 0.8878784

00:09:06.654 --> 00:09:08.015 Quickly about the service rates,

NOTE Confidence: 0.8878784

00:09:08.175 --> 00:09:09.375 we charge about hundred and

NOTE Confidence: 0.8878784

00:09:09.375 --> 00:09:10.755 thirty dollars for thirty minutes.

NOTE Confidence: 0.8878784

00:09:10.895 --> 00:09:12.175 With assisted, that mean I

NOTE Confidence: 0.8878784

00:09:12.175 --> 00:09:13.375 would be doing operation for

NOTE Confidence: 0.8878784

00:09:13.375 --> 00:09:14.495 you. If you get trained

NOTE Confidence: 0.8878784

00:09:14.495 --> 00:09:15.255 and use it by yourself,

NOTE Confidence: 0.8878784

00:09:15.255 --> 00:09:16.335 it's sixty five dollars for

NOTE Confidence: 0.8878784

00:09:16.335 --> 00:09:17.415 thirty minutes. You don't need

NOTE Confidence: 0.8878784

00:09:17.415 --> 00:09:18.415 a you need just need

NOTE Confidence: 0.8878784

00:09:18.415 --> 00:09:19.295 training, and you have an

NOTE Confidence: 0.8878784

00:09:19.295 --> 00:09:20.255 underscore to access, meaning you

NOTE Confidence: 0.8878784

00:09:20.255 --> 00:09:21.615 can access the machine anytime

NOTE Confidence: 0.8878784

00:09:21.615 --> 00:09:22.470 area of the week.

NOTE Confidence: 0.8540756

00:09:24.709 --> 00:09:25.670 So this is our contact

NOTE Confidence: 0.8540756

00:09:25.670 --> 00:09:27.350 information here, doctor Jay Chen,

NOTE Confidence: 0.8540756

00:09:27.350 --> 00:09:28.949 and that's me, Kamalakram Maripuri.

NOTE Confidence: 0.8540756

00:09:28.949 --> 00:09:30.069 And our our website and

NOTE Confidence: 0.8540756

00:09:30.069 --> 00:09:31.429 people's website is included in

NOTE Confidence: 0.8540756

00:09:31.429 --> 00:09:32.629 the presentation over here, which

NOTE Confidence: 0.8540756

00:09:32.629 --> 00:09:33.429 I'll share with you in

NOTE Confidence: 0.8540756

00:09:33.429 --> 00:09:34.389 a few minutes. Thank you,

NOTE Confidence: 0.8540756

00:09:34.389 --> 00:09:35.850 everybody. Any questions?