

Coreline Soft Co., Ltd. % Hyeyi Park RA Manager 4,5F (Yeonnam-dong), 49, World Cup buk-ro-6-gil, Mapo-gu, Seoul, 03991 REPUBLIC OF KOREA

November 10, 2022

Re: K220408

Trade/Device Name: AVIEW RT ACS Regulation Number: 21 CFR 892.2050

Regulation Name: Medical image management and processing system

Regulatory Class: Class II Product Code: QKB Dated: October 7, 2022 Received: October 11, 2022

#### Dear Hyeyi Park:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <a href="https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm</a> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part

K220408 - Hyeyi Park Page 2

801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <a href="https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products">https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</a>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <a href="https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems">https://www.fda.gov/medical-device-problems</a>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance</a>) and CDRH Learn (<a href="https://www.fda.gov/training-and-continuing-education/cdrh-learn">https://www.fda.gov/training-and-continuing-education/cdrh-learn</a>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</a>) for more information or contact DICE by email (<a href="DICE@fda.hhs.gov">DICE@fda.hhs.gov</a>) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

## Julie Sullivan -S

Julie Sullivan, Ph.D.
Director
DHT8C: Division of Radiological Imaging and Radiation Therapy Devices

OHT8: Office of Radiological Health Office of Product Evaluation and Quality Center for Devices and Radiological Health

Enclosure

#### DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

#### Indications for Use

Form Approved: OMB No. 0910-0120 Expiration Date: 06/30/2023 See PRA Statement below.

510(k) Number (if known)
K220408
Device Name
AVIEW RT ACS
Indications for Use (Describe)  AVIEW RT ACS provides deep-learning-based auto-segmented organs and generates contours in RT-DICOM format
from CT images which could be used as an initial contour for the clinicians to approve and edit by the radiation oncology
department for treatment planning or other professions where a segmented mask of organs is needed.
a. Deep learning contouring from four body parts (Head & Neck, Breast, Abdomen, and Pelvis)
b. Generates RT-DICOM structure of contoured organs
c. Rule-based auto pre-processing Receive/Send/Export medical images and DICOM data
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Note that the Breast (Both right and left lung, Heart) were validated with non-contrast and contrast CT. Head & Neck (Both right and left Eyes, Brain and Mandible), Abdomen (Both right and left Kidney and Liver), and Pelvis (Both right and left Femur and Bladder) were validated with Contrast CT only.
Type of Use (Select one or both, as applicable)
Prescription Use (Part 21 CFR 801 Subpart D) Over-The-Counter Use (21 CFR 801 Subpart C)
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#### CONTINUE ON A SEPARATE PAGE IF NEEDED.

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core:line

### 510(k) Summary

K220408

#### 1 SUBMITTER

Coreline Soft Co., Ltd.

4,5F (Yeonnam-dong), 49 World Cup buk-ro 6-gil, Mapo-gu, Seoul, 03991, Republic of Korea.

Phone: 82.2.517.7321 Fax: 82.2.571.7324

Contact Person: hyeyi. Park Date Prepared: 02.10.2022

#### 2 DEVICE

Name of Device: AVIEW RT ACS

Common or Usual Name: Medical Imaging Software

Classification Name: Radiological Image Processing Software For Radiation Therapy (21CFR 892.2050)

Regulatory Class: II Product Code: QKB

#### 3 PREDICATE DEVICE

MIM-MRT Dosimetry by MIM Software Inc. (K182624)

Name of Device: MIM-MRT Dosimetry

Common or Usual Name: Medical Imaging Software

Classification Name: System, image processing, radiological (21CFR 892.2050)

Regulatory Class: II Product Code: LLZ

This predicate has not been subject to a design-related recall

#### 4 REFERENCE DEVICE

AccuContour<sup>™</sup> by Xiamen Manteia Technology LTD. (K191928)

Name of Device: AccuContour™

Common or Usual Name: Medical Imaging Software

Classification Name: Radiological Image Processing Software For Radiation Therapy (21CFR 892.2050)

Regulatory Class: II Product Code: QKB



This reference device has not been subject to a design-related recall

#### 5 DEVICE DESCRIPTION

The AVIEW RT ACS provides deep-learning-based auto-segmented organs and generates contours in RT-DICOM format from CT images. This software could be used by the radiation oncology department for treatment planning, or other professions where a segmented mask of organs is needed.

- Deep learning contouring: it can automatically contour the organ-at-risk (OARs) from four body parts (Head & Neck, Breast, Abdomen, and Pelvis)
- Generates RT-DICOM structure of contoured organs
- Rule-based auto pre-processing

Receive/Send/Export medical images and DICOM data

#### 6 INDICATIONS FOR USE

AVIEW RT ACS provides deep-learning-based auto-segmented organs and generates contours in RT-DICOM format from CT images which could be used as an initial contour for the clinicians to approve and edit by the radiation oncology department for treatment planning or other professions where a segmented mask of organs is needed.

- a. Deep learning contouring from four body parts (Head & Neck, Breast, Abdomen, and Pelvis)
- b. Generates RT-DICOM structure of contoured organs
- c. Rule-based auto pre-processing

Receive/Send/Export medical images and DICOM data

Note that the Breast (Both right and left lung, Heart) were validated with non-contrast and contrast CT. Head & Neck (Both right and left Eyes, Brain, and Mandible), Abdomen (Both right and left Kidney and Liver), and Pelvis (Both right and left Femur and Bladder) were validated with Contrast CT only.

# 8 COMPARISION OF TECHNOLOGICAL CHARACTERISTICS WITH THE PREDICATE DEVCIE

AVIEW RT ACS has the same intended use and the principle of operation and has similar features to the predicate devices.

There might be slight differences in features and menu, but these differences between the predicate device and the proposed device are not so significant since they do not raise any new or potential safety risks to the user or patient and questions of safety or effectiveness. Based on the results of software validation and verification tests, we conclude that the proposed device is substantially equivalent to the predicate devices.

Characteristic	Subject Device	Primary Predicate Device	Reference Device	
<b>Device Name</b>	AVIEW RT ACS	MIM-MRT Dosimetry	AccuContour	
<b>Classification Name</b>	Radiological Image	System, image Processing	Radiological Image	
	Processing Software For	Radiological	Processing Software For	
	Radiation Therapy		Radiation Therapy	
Regulatory Number	21 CFR 892.2050	21 CFR 892.2050	21 CFR 892.2050	
Product Code	QKB	LLZ	QKB	
Review Panel	Radiology	Radiology	Radiology	
510k Number	-	K182624	K191928	
Indications for use	AVIEW RT ACS			
		deep-learning-based auto-segn		
		at from CT images which could		
	for the clinicians to approve and edit by the radiation oncology department for treatmen			
	planning or other professions where a segmented mask of organs is needed.  a. Deep learning contouring from four body parts (Head & Neck, Breast, Abdomen,			
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	b. Generates RT-DICOM structure of contoured organs			
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		oth right and left Eyes, Brain an		
		er), and Pelvis (Both right and le		
	validated with Contrast CT or	nly.	•	
	MIM-MRT Dosimetry			
	MIM software is used by tra	ined medical professionals as a	tool to aid in evaluation and	
		ligital medical images. The med		
		RI, CR, DX, MG, US, SPECT,		
		M assists in the following indic		
		etrieve, display, print, and proces	ss medical images and DICOM	
	objects.			
		reports from medical images.	C 1:	
		lay, and review of medical im	lages for diagnosis, treatment	
	evaluation, and treatment		sian inalydina laft vantriaylar	
		• Evaluation of cardiac left ventricular function and perfusion, including left ventricular enddiastolic volume, end-systolic volume, and ejection fraction.		
		ition of objects such as tumors and normal tissues in medical		
	images.	on objects such as fullors a	ma normai tissues ili ilieuleai	
		and modification of contours t	for applications including but	
		ve analysis, aiding adaptive the		
		nt planning systems, and archiving		
	radiation therapy treatmen	it planning by blemb, and alternivi	ing contours for patient follow-	

up and management.

- Quantitative and statistical analysis of PET/SPECT brain scans by comparing to other registered PET/SPECT brain scans.
- Planning and evaluation of permanent implant brachytherapy procedures (not including radioactive microspheres).
- Calculating absorbed radiation dose as a result of administering radionuclide.

When using device clinically, the user should only use FDA approved radiopharmaceuticals. If using with unapproved ones, this device should only be used for research purposes. Lossy compressed mammographic images and digitized film screen images must not be reviewed for primary image interpretations. Images that are printed to film must be printed using an FDA-approved printer for the diagnosis of digital mammography images. Mammographic images must be viewed on a display system that has been cleared by the FDA for the diagnosis of digital mammography images. The software is not to be used for mammography CAD.

#### **AccuContour**

It is used by radiation oncology department to register multimodality images and segment (non-contrast) CT images, to generate needed information for treatment planning, treatment evaluation and treatment adaptation.

#### **AVIEW RT ACS**

The AVIEW RT ACS provides deep-learning-based auto-segmented organs and generates contours in RT-DICOM format from CT images. This software could be used by the radiation oncology department for treatment planning, or other professions where a segmented mask of organs is needed.

- Deep learning contouring: it can automatically contour the organ-at-risk (OARs) from four body parts (Head & Neck, Breast, Abdomen, and Pelvis)
- Generates RT-DICOM structure of contoured organs
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Receive/Send/Export medical images and DICOM data

#### **MIM-MRT Dosimetry**

MIM - MRT Dosimetry extends features of MIM SurePlan. It is designed for use in medical imaging and operates on both Windows and Mac computer systems. MIM - MRT Dosimetry extends the functionality of the MIM - Y90 Dosimetry (K172218) software and utilizes functionality of MIM -SPECTRA Quant (K180815). Both of these are predicates for this submission. The following functions have been added to allow calculations of absorbed dose as a result of administering a radionuclide.

- Allows for quantification of planar images
- Allows for calculation of time-integrated activity coefficients
- Allows for voxel-based dose calculation of radionuclides

Allows for correction of dose for tissue density

#### AccuContour

The proposed device, AccuContourTM, is a standalone software which is used by radiation oncology department to register multimodality images and segment (non-contrast) CT images, to generate needed information for treatment planning, treatment evaluation and treatment adaptation.

The product has two image process functions:

(1) Deep learning contouring: it can automatically contour the organ-at-risk, including head and neck,

thorax, abdomen and pelvis (for both male and female),

- (2) Automatic Registration, and
- (3) Manual Contour.

It also has the following general functions:

Receive, add/edit/delete, transmit, input/export, medical images and DICOM data.

#### **General Description**



	Patient management.     Review of processed images.			
Operating System	Open and save of files. Windows	Windows and MAC system	Windows	
Image format	DICOM	DICOM	DICOM	
Data Communications	Receive, transmit, store, retrieve and process medical images and DICOM objects	Receive, transmit, store, retrieve, display, print, and process medical images and DICOM objects.	Receive, add/edit/delete, transmit, input/export, medical images and DICOM data	
Algorithm	Deep Learning	Atlas-based	Deep Learning	
Compatible Modality	CT Images	Non-Contrast CT	Non-Contrast CT	
Segmentation of Organ	Head & Neck, Breast, Abdomen, Pelvis	Head & Neck, Breast, Abdomen, Pelvic	Head & Neck, Thorax, Abdomen & Pelvis	
Automated workflow	Automatically processes input image data contour organs and DICOM sends generated RT Structure set	Creation, transformation, and modification of contours for applications including, but not limited to, quantitative analysis, aiding adaptive therapy, transferring contours to radiation therapy treatment planning systems, and archiving contours for patient follow-up and management	AccuContour automatically processes input image data	
Data anonymization	Replaces the patient's name and ID with user defined prefix and suffixes and IDs and strips the birth date, referring physician name, and any private DICOM tags that exist.	Replaces the patient's name and ID with randomized generic names and IDs and strips the birth date, referring physician name, and any private DICOM tags that exist.	No information publicly available.	
Target Population	Any patient type for whom scanned with CT modality images and segment CT images are available.	Any patient type for whom relevant modalities such as CT and MR, as supported by ACR/NEMA DICOM 3.0.	Any patient type for whom Relevant multimodality images and segment (noncontrast) CT images are available.	
Segmentation Performance	The segmentation performance was validated multi-race and multi-vendor using datasets from South Korea and the USA using four major vendors (GE, Siemens, Toshiba and Phillips). The segmentation accuracy is evaluated using DICE coefficient	Contour Evaluation: Atlasbased segmentation studies have shown the accuracy of multi-atlas segmentation with an overall average dice similarity index of 0.81 for the contours tested: right and left lung, trachea, heart, and esophagus	The segmentation performance was validated using datasets from China and the USA using three major vendors (GE, Siemens and Phillips). The segmentation accuracy is evaluated using DICE coefficient	

#### 9 PERFORMANCE DATA

#### 9.1 Handware and software verification and Validation

This Medical device is not new; therefore, a clinical study was not considered necessary prior to release. Additionally, there was no clinical testing required to support the medical device as the indications for use is equivalent to the predicate device. The substantial equivalence of the device is supported by the non-clinical testing

Verification, validation, and testing activities were conducted to establish the performance, functionality and reliability characteristics of the modified devices. The device passed all of the tests based on pre-determined Pass/Fail criteria.

#### - Unit Test

Conducting Unit Test using Google C++ Unit Test Framework on major software components identified by software development team. List of Unit Test includes Functional test condition for software component unit, Performance test condition, and part of algorithm analysis for image processing algorithm.

#### System Test

In accordance with the document 'integration Test Cases' discussed in advanced by software development team and test team, test is conducted by installing software to hardware with recommended system specification. Despite Test case recognized in advance was not in existence. New software error discovered by 'Exploratory Test' conducted by test team will be registered and managed as new test case after discussion between development team and test team.

Discovered software error will be classified into 3 categories as severity and managed.

- Major defects, which are impacting the product's intended use and no workaround is available.
- ✓ Moderate defects, which are typically related to user-interface or general quality of product, while workaround is available.
- ✓ Minor defects, which aren't impacting the product's intended use. Not significant.

Success standard of System Test is not finding 'Major', 'Moderate' defect.

#### - Performance Test

- DICOM Test Report
- DICOM Conformance Statement
- Thin Client Server Compatibility Test Report
- Compare Standalone Performacne Test
  - The purpose of this test is to compare and verify the AVIEW RT ACS performance and the performance of the predicate device. The test process involves generating a robust gold standard. Three radiation oncology physicians segmented the organs to be used for validation. There were 3 experts, all trained by the "The Korean Society for Radiation Oncology", board-certified by the "Ministry of Health and Welfare", with a range of 9–21 years of experience in radiotherapy to participate in this test. The experts were attending assistant professors (n=2), and professors (n=1) from three institutions. First, the 1 expert manually delineated the organs. Second, segmentation results generated by 1 expert are sequentially edited by 2 experts. In the editing process, the first expert makes corrections, and the result is received by another expert. The final expert completes the gold standard by finalizing it. This process was performed by a panel of three radiation oncology physicians' experiences. And the results of auto-segmentation of gold-standard and AVIEW RT ACS and auto-segmentation of predicate device are analyzed and evaluated using

DSC and 95% HD, respectively. The data set information used in the test is 120cases (each 60cases) including both Korean and U.S, Gender: F 70, M 50, Age: 20-89 years. The TCIA data was constructed with various ethnics (White, Black, Asian, Hispanic, Latino, African, American, etc.), the result can be obtained by performing generalization without performance difference according to ethnic

- ▶ Breast (Both right and left lung, Heart) were validated with non-contrast and contrast CT.
- Head & Neck(Both right and left Eyes, Brain and Mandible), Abdomen(Both right and left Kidney and Liver), and Pelvis(Both right and left Femur and Bladder) were validated with Contrast CT only.
- ➤ DSC and 95% HD(mm) for
  - ◆ Total DSC & HD analysis.

• Table 1 DSC for each oragn

Part	Organ	AVIEW	Predicate device	Difference
Head& Neck	Brain (25)	$0.97 \pm 0.01(0.97, 0.98)$	$0.96 \pm 0.01 (0.96, 0.96)$	0.01
Neck	Rt. Eye (25)	$0.79 \pm 0.10  (0.75, 0.83)$	$0.80 \pm 0.06  (0.77, 0.82)$	-0.01
	Lt. eye (25)	0.72 ± 0.12 (0.67, 0.76)	$0.76 \pm 0.12  (0.72, 0.81)$	-0.04
	Mandible (25)	$0.90 \pm 0.05 (0.89, 0.93)$	$0.83 \pm 0.07  (0.80, 0.86)$	0.07
Breast	Heart (32)	$0.94 \pm 0.03  (0.93, 0.95)$	$0.78 \pm 1.20  (0.70, 8.56)$	0.16
	Rt. Lung (31)	$0.98 \pm 0.01 (0.97, 0.98)$	$0.96 \pm 0.02  (0.95, 0.97)$	0.02
	Lt. Lung (31)	$0.97 \pm 0.02 (0.96, 0.98)$	$0.96 \pm 0.03  (0.95, 0.97)$	0.01
Abdom en	Liver (26)	0.96 ± 0.01 (0.96, 0.97)	$0.87 \pm 0.06  (0.85, 0.90)$	0.09
	Rt. Kidney (26)	$0.90 \pm 0.03  (0.89, 0.91)$	$0.75 \pm 0.18  (0.68, 0.82)$	0.15
	Lt. kidney (26)	$0.90 \pm 0.05  (0.88, 0.92)$	$0.79 \pm 0.12 (0.75, 0.84)$	0.11
Pelvis	Bladder (35)	$0.88 \pm 0.14  (0.84, 0.93)$	$0.52 \pm 0.26  (0.44, 0.60)$	0.36
	Rt. Femur head (37)	$0.87 \pm 0.14  (0.83, 0.90)$	0.58 ± 0.11 (0.54, 0.61)	0.29
	Lt. Femur head (37)	$0.86 \pm 0.10  (0.83, 0.90)$	$0.55 \pm 0.11(0.51, 0.58)$	0.31

• Table 2. 95% HD (mm) for each oragn

Part	Organ	AVIEW	Predicate device	Difference
Head& Neck	Brain (25)	6.92 ± 20.46 (-1.1, 14.94)	4.61 ± 2.17 (3.76, 5.46)	2.31
Neck	Rt. Eye (25)	$3.68 \pm 1.50 (3.09, 4.27)$	4.38 ± 1.36 (3.85, 4.91)	-0.70
	Lt. eye (25)	6.38 ± 11.11 (2.03, 10.74)	7.74 ± 10.83 (3.50, 11.99)	-1.36
	Mandible (25)	2.01 ± 1.23 (1.53, 2.49)	24.00 ± 93.61 (-12.69, 60.70)	-21.99
Breast	Heart (32)	6.19 ± 4.21 (4.73, 7.65)	18.90 ± 5.09 (17.14, 20.67)	-12.71
	Rt. Lung (31)	2.88 ± 1.67 (2.30, 3.47)	$7.03 \pm 2.94 (6.00, 8.06)$	-4.14
	Lt. Lung (31)	4.97 ± 13.49 (0.22, 9.72)	4.83 ± 6.21 (2.64, 7.02)	0.14
Abdom en	Liver (26)	7.17 ± 12.07 (2.54, 11.81)	24.62 ± 15.16 (18.79, 30.44)	-17.44
	Rt. Kidney (26)	6.84 ± 9.14 (3.33, 10.35)	14.63 ± 13.07 (9.60, 19.65)	<b>-</b> 7.79

	Lt. kidney (26)	5.34 ± 4.30 (3.69, 6.99)	15.18 ± 10.71 (11.06, 19.26)	-9.84
Pelvis	Bladder (35)	10.55 ± 20.56 (3.74, 17.36)	30.48 ± 22.76 (22.94, 38.02)	-19.93
	Rt. Femur head (37)	10.02 ± 8.94 (7.10, 12.93)	43.65 ± 30.38 (33.72, 53.57)	-33.63
	Lt. Femur head (37)	11.75 ± 12.42 (7.64, 15.86)	46.14 ± 24.84 (37.91, 54.37)	-34.39

DSC and 95% HD(mm) were obtained by race, vendors, slice thickness and kernel for sub-group analysis.

## ◆ Dice Similarity Coefficient Comparison (DSC) Table 3. DSC for Korean Population each organ.

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (10)	0.97 ± 0.01 (0.97, 0.98)	$0.96 \pm 0.01  (0.95, 0.96)$	0.01
Neck	Rt. Eye (10)	$0.81 \pm 0.07  (0.76, 0.86)$	$0.80 \pm 0.07  (0.76, 0.84)$	0.01
	Lt. eye (10)	$0.77 \pm 0.09  (0.71, 0.82)$	$0.79 \pm 0.06  (0.75, 0.83)$	-0.02
	Mandible (10)	0.90 ± 0.03 (0.89, 0.93)	$0.81 \pm 0.09  (0.76, 0.87)$	0.09
Breast	Heart (21)	0.95 ± 0.02 (0.94, 0.96)	$0.81 \pm 0.10  (0.76, 0.85)$	0.14
	Rt. Lung (21)	0.97 ± 0.01 (0.97, 0.98)	$0.96 \pm 0.02  (0.95, 0.97)$	0.01
	Lt. Lung (21)	0.96 ± 0.02 (0.96, 0.97)	$0.95 \pm 0.03  (0.94, 0.97)$	0.01
Abdom	Liver (10)	0.95 ± 0.01 (0.94, 0.96)	$0.88 \pm 0.08  (0.83, 0.93)$	0.07
en	Rt. Kidney (10)	0.89 ± 0.03 (0.87, 0.91)	$0.75 \pm 0.24  (0.60, 0.90)$	0.14
	Lt. kidney (10)	$0.88 \pm 0.06  (0.84, 0.92)$	$0.80 \pm 0.16  (0.70, 0.90)$	0.08
Pelvis	Bladder (17)	0.92 ± 0.07 (0.89, 0.95)	$0.47 \pm 0.27  (0.34, 0.59)$	0.45
	Rt. Femur head (19)	$0.88 \pm 0.07 (0.84, 0.91)$	$0.56 \pm 0.11  (0.51, 0.61)$	0.32
	Lt. Femur head (19)	0.87 ± 0.78 (0.84, 0.91)	$0.52 \pm 0.13  (0.46, 0.58)$	0.35

Table 4. DSC for U.S Population each organ.

Part	Organ	AVIEW	Predicate device	Difference
Head& Neck	Brain (15)	0.97 ± 0.01 (0.96, 0.98)	$0.96 \pm 0.01  (0.96, 0.97)$	0.01
Neck	Rt. Eye (15)	$0.78 \pm 0.12  (0.72, 0.84)$	$0.80 \pm 0.06  (0.77, 0.83)$	-0.02
	Lt. eye (15)	0.68 ± 0.13 (0.62 ±	$0.75 \pm 0.14  (0.68, 0.82)$	-0.07
		0.75)		
	Mandible (15)	0.91 ± 0.06 (0.88, 0.94)	$0.84 \pm 0.06  (0.81, 0.87)$	0.07
Breast	Heart (11)	$0.93 \pm 0.04  (0.90, 0.95)$	$0.71 \pm 0.09  (0.65, 0.76)$	0.22
	Rt. Lung (10)	$0.98 \pm 0.0  (0.98, 0.99)$	$0.96 \pm 0.01  (0.96, 0.97)$	0.02
	Lt. Lung (10)	0.97 ± 0.03 (0.95, 0.99)	$0.96 \pm 0.03  (0.95, 0.98)$	-0.01
Abdom	Liver (16)	$0.97 \pm 0.01  (0.96, 0.97)$	$0.87 \pm 0.05  (0.85, 0.90)$	1.0
en	Rt. Kidney (16)	0.91 ± 0.01 (0.91, 0.92)	$0.75 \pm 0.14  (0.68, 0.82)$	0.16

	Lt. kidney (16)	$0.91 \pm 0.02  (0.90, 0.92)$	$0.79 \pm 0.09  (0.74, 0.83)$	0.12
Pelvis	Bladder (18)	$0.85 \pm 0.19  (0.76, 0.94)$	$0.58 \pm 0.22  (0.48, 0.69)$	0.27
	Rt. Femur head (18)	$0.80 \pm 0.12 (0.80, 0.91)$	$0.60 \pm 0.10  (0.55, 0.65)$	0.20
	Lt. Femur head (18)	0.85 ± 0.13 (0.79 ± 0.91)	$0.57 \pm 0.09  (0.53, 0.62)$	0.27

◆ Hausdorff Distance Comparison (95% HD)
◆ Table 5. 95% HD (mm) for Korean Population each organ.

Part	Organ	AVIEW	Predicate device	Difference
Head& Neck	Brain (10)	13.19 ± 32.27 (6.81, 33.19)	4.33 ± 1.33 (3.51, 5.16)	8.86
	Rt. Eye (10)	$3.18 \pm 1.01 (2.55, 3.81)$	4.14 ± 1.36 (3.30, 4.99)	-0.96
	Lt. eye (10)	$3.53 \pm 1.40 (2.66, 4.40)$	5.22 ± 2.33 (3.78, 6.66)	<b>-</b> 1.69
	Mandible (10)	2.02 ± 0.53 (1.69, 2.35)	$6.15 \pm 5.71 (2.61, 9.69)$	-4.13
Breast	Heart (21)	5.24 ± 2.57 (4.15, 6.34)	18.16 ± 4.72 (16.14, 20.18)	<b>-</b> 12.92
	Rt. Lung (21)	3.41 ± 1.76 (2.66, 4.16)	$6.87 \pm 3.19 (5.50, 8.23)$	-3.46
	Lt. Lung (21)	2.79 ± 0.52 (2.57, 3.01)	3.24 ± 0.96 (2.83, 3.65)	-0.45
Abdom en	Liver (10)	4.29 ± 1.50 (3.26, 5.22)	21.14 ± 17.22 (10.46, 31.81)	-16.85
	Rt. Kidney (10)	4.74 ± 1.77 (3.65, 5.84)	15.24 ± 17.44 (4.43, 26.05)	-10.49
	Lt. kidney (10)	6.24 ±3.35 (2.30, 10.18)	12.34 ± 10.54 (5.80, 18.87)	<b>-</b> 6.10
Pelvis	Bladder (17)	4.90 ± 6.03 (2.19, 7.61)	33.96 ± 26.33 (22.13, 45.80)	-29.06
	Rt. Femur head (19)	9.52 ± 6.64 (6.61, 12.43)	41.34 ± 8.74 (37.51, 45.17)	-31.82
	Lt. Femur head (19)	9.93 ± 6.83 (6.94, 12.92)	49.19 ± 32.97 (34.73, 63.64)	-39.26

• Table 6. 95% HD (mm) for U.S Population each organ

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (15)	$2.74 \pm 1.09 (2.19, 3.29)$	$4.79 \pm 2.62 \ (3.47, 6.12)$	-2.05
Neck	Rt. Eye (15)	$4.01 \pm 1.71 \ (3.15, 4.87)$	$4.53 \pm 1.38  (3.84, 5.23)$	-0.52
	Lt. eye (15)	$8.29 \pm 14.16 (1.12, 15.45)$	$9.42 \pm 13.78  (2.45,  16.40)$	-1.13
	Mandible	$2.00 \pm 1.56 (1.21, 2.79)$	$35.91 \pm 120.91$ (-25.28,	-33.91
	(15)		97.10)	
Breast	Heart (11)	$8.00 \pm 6.03$ (4.43, 11.56)	$20.31 \pm 5.71 \ (16.94, 23.69)$	-12.31
	Rt. Lung	$1.78 \pm 0.66  (1.36, 2.19)$	$7.37 \pm 2.43 \ (5.86, 8.88)$	-5.59
	(10)			
	Lt. Lung	$9.56 \pm 23.90 (-5.25, 24.97)$	$8.18 \pm 10.41  (1.72,  14.63)$	1.38
	(10)			
Abdom	Liver (16)	$8.98 \pm 15.24  (1.51,  16.45)$	$26.79 \pm 13.86 (20.00, 33.58)$	-17.81
en	Rt. Kidney	$8.15 \pm 11.51 (3.61, 5.94)$	$14.25 \pm 10.08  (9.31,  19.19)$	-6.10
	(16)			
	Lt. kidney	$4.77 \pm 2.38  (3.61, 5.94)$	$16.96 \pm 10.75 (11.69, 22.22)$	-12.19
	(16)			

Pelvis	Bladder (18)	$17.37 \pm 28.73 \ (3.29, 31.44)$	$27.01 \pm 18.47 (17.96, 36.06)$	-9.64
	Rt. Femur	$10.57 \pm 11.16 (5.10, 16.04)$	$46.09 \pm 43.22 (24.91, 67.27)$	-35.52
	head (18)		, , , ,	
	Lt. Femur	$13.91 \pm 16.86 (5.38, 22.44)$	$42.52 \pm 8.23 \ (38.35, 46.68)$	-28.61
	head (18)			

◆ DSC & 95% HD (mm) Comparison by vendors, slice thickness and kernel

• Table 7. DSC for organ by SIEMENS vendors.

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (4)	$0.97 \pm 0.01 \ (0.97, \ 0.98)$	$0.96 \pm 0.0  (0.96, 0.97)$	0.01
Neck	Rt. Eye (4)	$0.85 \pm 0.05 \ (0.80, 0.90)$	$0.77 \pm 0.05 \; (0.72,  0.82)$	0.08
	Lt. eye (4)	$0.78 \pm 0.04 \ (0.71, \ 0.86)$	$0.77 \pm 0.05 \; (0.72,  0.82)$	0.01
	Mandible (4)	$0.91 \pm 0.04 \ (0.87, 0.94)$	$0.81 \pm 0.13 \; (0.68, 0.94)$	0.10
Breast	Heart (9)	$0.94 \pm 0.02 \ (0.93, \ 0.96)$	$0.75 \pm 0.10 \ (0.69, 0.82)$	0.19
Ì	Rt. Lung (9)	$0.97 \pm 0.01 \ (0.96, 0.98)$	$0.95 \pm 0.02 \; (0.94,  0.97)$	-0.02
Ì	Lt. Lung (9)	$0.96 \pm 0.02 \ (0.95, 0.97)$	$0.95 \pm 0.02 \ (0.94, 0.97)$	0.01
Abdom	Liver (16)	$0.96 \pm 0.01 \ (0.96, 0.97)$	$0.86 \pm 0.06  (0.84,  0.89)$	0.10
en	Rt. Kidney	$0.91 \pm 0.02 \ (0.90, \ 0.92)$	$0.77 \pm 0.12 \; (0.72,  0.83)$	0.14
	(16)			
	Lt. kidney	$0.91 \pm 0.03 \; (0.89,  0.92)$	$0.78 \pm 0.08 \ (0.74,  0.82)$	0.13
	(16)			
Pelvis	Bladder (18)	$0.90 \pm 0.07  (0.87,  0.93)$	$0.55 \pm 0.27 \ (0.42, 0.67)$	0.35
	Rt. Femur	$0.90 \pm 0.06  (0.87,  0.93)$	$0.56 \pm 0.10 \ (0.51, 0.60)$	0.34
	head (19)			
	Lt. Femur	$0.89 \pm 0.09  (0.85,  0.93)$	$0.53 \pm 0.13 \; (0.47,  0.58)$	0.36
	head (19)			

• Table 8. 95% HD (mm) for each organ by SIEMENS vendors.

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (4)	$28.16 \pm 51.23$ (-22.04,	$3.28 \pm 0.45 \ (2.84, 3.72)$	24.88
Neck		78.36)		
	Rt. Eye (4)	$2.77 \pm 0.37 \ (2.42, 3.13)$	$4.75 \pm 1.50  (3.29, 6.22)$	-1.98
	Lt. eye (4)	$3.26 \pm 0.53 \ (2.74, 3.78)$	$5.30 \pm 2.18  (3.16 \pm 7.44)$	-2.04
	Mandible (4)	$1.91 \pm 0.51 \ (1.42, 2.41)$	$5.04 \pm 4.11 \ (1.01, 9.08)$	-3.13
Breast	Heart (9)	$5.92 \pm 2.97  (3.98,  7.86)$	$20.17 \pm 3.52 \ (17.86, 22.47)$	-14.25
	Rt. Lung (9)	$2.73 \pm 0.61 \ (2.33, 3.13)$	$7.30 \pm 2.63 \ (5.58, 9.02)$	-4.58
	Lt. Lung (9)	$2.97 \pm 0.26 \ (2.80, 3.14)$	$3.63 \pm 1.25 (2.81, 4.45)$	-0.65
Abdom	Liver (16)	$9.10 \pm 15.19  (1.66,  16.55)$	$29.04 \pm 14.54$ (21.92, 36.16)	-19.93
en	Rt. Kidney	$8.40 \pm 11.42 \ (2.81, 14.00)$	$15.54 \pm 9.83 \ (10.73, 20.36)$	<b>-</b> 7.14
	(16)			
	Lt. kidney	$5.47 \pm 3.29 \ (3.86, 7.08)$	$18.94 \pm 10.02  (14.03, 23.85)$	-13.47
	(16)			
Pelvis	Bladder (18)	$7.04 \pm 9.22 \ (2.65, 11.42)$	$23.99 \pm 17.93 (15.71, 32.27)$	-16.95
	Rt. Femur	$8.01 \pm 6.47 (5.10, 10.92)$	$50.42 \pm 3.59 (32.13, 68.71)$	-42.41
	head (19)			
	Lt. Femur	$8.57 \pm 7.05 \ (5.40, 11.74)$	$41.98 \pm 9.27 (37.70, 46.27)$	-33.41
	head (19)			

• Table 9. DSC for each oragn by GE vendors

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (2)	$0.96 \pm 0.01  (0.96,  0.97)$	$0.97 \pm 0.0 \ (0.96, 0.97)$	-0.01
Neck	Rt. Eye (2)	$0.70 \pm 0.08  (0.64,  0.76)$	$0.81 \pm 0.04  (0.78,  0.84)$	-0.11
	Lt. eye (2)	$0.61 \pm 0.12 \ (0.53, 0.69)$	$0.78 \pm 0.06  (0.074,  0.81)$	-0.17
	Mandible (2)	$0.88 \pm 0.07  (0.83,  0.93)$	$0.81 \pm 0.06  (0.65, 0.76)$	0.07

Breast	Heart (12)	$0.93 \pm 0.04  (0.90,  0.95)$	$0.71 \pm 0.09  (0.65, 0.76)$	0.22
1	Rt. Lung	$0.98 \pm 0.0  (0.98, 0.99)$	$0.96 \pm 0.01  (0.96, 0.97)$	0.02
	(12)			
	Lt. Lung	$0.97 \pm 0.03 \; (0.95,  0.99)$	$0.96 \pm 0.03 \ (0.95, 0.98)$	0.01
	(12)			
Abdom	Liver (3)	0.97	0.85	0.12
en	Rt. Kidney	0.91	0.50	0.41
	(3)			
	Lt. kidney	0.89	0.88	0.01
	(3)			
Pelvis	Bladder (9)	$0.72 \pm 0.31 \ (0.45, 1.0)$	$0.52 \pm 0.25 \; (0.31,  0.74)$	0.20
	Rt. Femur	$0.84 \pm 0.13 \; (0.73,  0.95)$	$0.60 \pm 0.12  (0.49,  0.71)$	0.24
	head (9)			
	Lt. Femur	$0.81 \pm 0.15 \; (0.68,  0.94)$	$0.56 \pm 0.11  (0.46, 0.65)$	0.25
	head (9)			

• Table 10. 95% HD (mm) for each oragn by GE vendors

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (2)	$3.37 \pm 1.12 \ (2.60, 4.14)$	$4.01 \pm 0.77  (3.48, 4.55)$	-0.64
Neck	Rt. Eye (2)	$5.18 \pm 1.16 (4.37, 5.98)$	$4.57 \pm 1.37 \ (3.62, 5.52)$	0.61
	Lt. eye (2)	$5.63 \pm 1.06 (4.89, 6.36)$	$6.27 \pm 3.77 \ (3.66, 8.89)$	-0.64
	Mandible (2)	$2.64 \pm 1.93 \ (1.30, 3.97)$	$64.50 \pm 165.04 (16.94,$	-61.86
			23.69)	
Breast	Heart (12)	$8.00 \pm 6.03 \ (4.43, 11.56)$	$20.31 \pm 5.71 \ (16.94, 23.69)$	-12.31
	Rt. Lung	$1.78 \pm 0.66  (1.36, 2.19)$	$7.37 \pm 2.43 \ (5.86, 8.88)$	<b>-</b> 5.59
	(12)			
	Lt. Lung	$9.56 \pm 23.90 (-5.25, 24.37)$	$8.18 \pm 10.41  (1.72, 14.63)$	-1.38
	(12)			
Abdom	Liver (3)	3.27	32.82	-29.55
en	Rt. Kidney	3.27	5.88	<b>-</b> 2.61
	(3)			
	Lt. kidney	3.27	6.55	-3.28
	(3)			
Pelvis	Bladder (9)	$14.13 \pm 11.93 \ (3.68, 24.59)$	$36.66 \pm 31.09 (9.40, 63.91)$	-22.53
	Rt. Femur	$10.68 \pm 9.53 \ (2.33, 19.04)$	$32.41 \pm 12.58 (21.93, 43.44)$	-21.73
	head (9)	, i		
	Lt. Femur	$19.93 \pm 22.34 (0.35, 39.51)$	$44.61 \pm 11.01 (34.96, 54.26)$	-24.68
	head (9)	,		

• Table 11. DSC for each organ by PHILIPS vendors

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (11)	$0.98 \pm 0.01 \; (0.97,  0.98)$	$0.96 \pm 0.01$	0.02
Neck			(0.95, 0.96)	
	Rt. Eye (11)	$0.83 \pm 0.09  (0.77,  0.88)$	$0.81 \pm 0.07  (0.77,  0.86)$	0.02
	Lt. eye (11)	$0.74 \pm 0.10 \ (0.69, 0.80)$	$0.76 \pm 0.17  (0.67,  0.85)$	0.02
	Mandible	$0.93 \pm 0.03 \; (0.91,  0.94)$	$0.85 \pm 0.06  (0.82,  0.89)$	0.08
	(11)			
Breast	Heart	N/A	N/A	
	Rt. Lung	N/A	N/A	
	Lt. Lung	N/A	N/A	
Abdom	Liver (6)	$0.95 \pm 0.02 \; (0.94,  0.97)$	$0.89 \pm 0.08  (0.83,  0.95)$	0.06
en	Rt. Kidney	$0.88 \pm 0.04  (0.85,  0.91)$	$0.67 \pm 0.30  (0.43,  0.90)$	0.21
	(6)			
	Lt. kidney	$0.87 \pm 0.07  (0.81,  0.93)$	$0.75 \pm 0.19  (0.59,  0.90)$	0.12
	(6)			
Pelvis	Bladder (4)	$0.88 \pm 0.05 \ (0.83, 0.93)$	$0.31 \pm 0.18  (0.14,  0.48)$	0.57

Rt. Femur	$0.79 \pm 0.16  (0.63,  0.94)$	$0.64 \pm 0.15  (0.50, 0.79)$	0.15
head (4)			
Lt. Femur	$0.77 \pm 0.14  (0.63,  0.90)$	$0.63 \pm 0.13 \ (0.50, 0.75)$	0.14
head (4)			

• Table 12. 95% HD (mm) for each organ by PHILIPS vendors.

- 1401	Table 12. 9376 TID (lillif) for each organ by 1 THEH 3 vendors.				
Part	Organ	AVIEW	Predicate device	Difference	
Head&	Brain (11)	$2.57 \pm 0.85 \ (2.07, 3.08)$	$5.30 \pm 2.94 \ (3.56, 7.04)$	-2.73	
Neck	Rt. Eye (11)	$3.11 \pm 1.31 \ (2.34, 3.88)$	$3.97 \pm 1.43 \ (3.12, 4.81)$	-0.86	
	Lt. eye (11)	$8.80 \pm 16.77 (-1.10,18.71)$	$9.96 \pm 16.13 \ (0.43, 19.49)$	-1.16	
	Mandible	$1.72 \pm 0.67  (1.33,  2.12)$	$5.18 \pm 5.27 \ (2.06, 8.29)$	-3.46	
	(11)				
Breast	Heart	N/A	N/A		
	Rt. Lung	N/A	N/A		
	Lt. Lung	N/A	N/A		
Abdom	Liver (6)	$4.18 \pm 1.95 (2.62, 5.74)$	$18.06 \pm 15.21 \ (5.89, 30.24)$	-13.88	
en	Rt. Kidney	$4.54 \pm 1.78  (3.12, 5.96)$	$17.55 \pm 22.23 \ (-0.24, 35.34)$	-13.01	
	(6)				
	Lt. kidney	$6.30 \pm 7.42 \ (0.36, 12.24)$	$11.38 \pm 11.62 \ (2.07, 20.68)$	-5.08	
	(6)				
Pelvis	Bladder (4)	$8.72 \pm 5.85 \ (2.10, 15.34)$	$38.68 \pm 8.49 (29.07, 48.29)$	-29.96	
	Rt. Femur	$14.44 \pm 18.68$ (-6.70,	$24.39 \pm 23.29 (-1.96, 50.75)$	<b>-</b> 9.95	
	head (4)	35.58)			
	Lt. Femur	$54.37 \pm 59.01$ (-12.40,	$37.60 \pm 5.32 (31.58, 43.61)$	16.77	
	head (4)	121.14)			

• Table 13. DSC for each organ by TOSHIBA vendors

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (2)	$0.96 \pm 0.02 \; (0.93,  0.99)$	$0.95 \pm 0.01  (0.94,  0.97)$	0.01
Neck	Rt. Eye (2)	$0.86 \pm 0.05  (0.78, 0.93)$	$0.75 \pm 0.03 \; (0.71,  0.79)$	0.11
	Lt. eye (2)	$0.84 \pm 0.06  (0.76,  0.93)$	$0.74 \pm 0.03 \; (0.70,  0.77)$	0.10
	Mandible (2)	$0.94 \pm 0.0  (0.93, 0.94)$	$0.85 \pm 0.01  (0.84, 0.86)$	0.09
Breast	Heart (12)	$0.95 \pm 0.02 \; (0.94,  0.96)$	$0.85 \pm 0.09  (0.80,  0.90)$	0.10
	Rt. Lung	$0.97 \pm 0.01  (0.96, 0.98)$	$0.96 \pm 0.02 \; (0.95,  0.97)$	0.01
	(12)			
	Lt. Lung	$0.97 \pm 0.01  (0.96, 0.98)$	$0.95 \pm 0.04  (0.93,  0.98)$	0.02
	(12)			
Abdom	Liver (3)	$0.95 \pm 0.01  (0.94, 0.96)$	$0.92 \pm 0.04 \; (0.87,  0.97)$	0.03
en	Rt. Kidney	$0.92 \pm 0.02  (0.90,  0.94)$	$0.89 \pm 0.04  (0.84,  0.94)$	0.03
	(3)			
	Lt. kidney	$0.93 \pm 0.03 \ (0.90, 0.96)$	$0.91 \pm 0.04  (0.86, 0.96)$	0.02
	(3)			
Pelvis	Bladder (9)	$0.95 \pm 0.02  (0.93,  0.96)$	$0.52 \pm 0.26 \ (0.35,  0.69)$	0.43
	Rt. Femur	$0.85 \pm 0.10  (0.78, 0.91)$	$0.56 \pm 0.09  (0.50,  0.62)$	0.29
	head (9)			
	Lt. Femur	$0.88 \pm 0.07  (0.84,  0.92)$	$0.58 \pm 0.08  (0.53,  0.63)$	0.30
	head (9)			

• Table 14. 95% HD (mm) for each organ by TOSHIBA vendors.

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (2)	$2.53 \pm 2.08 \ (-0.36, 5.41)$	$5.86 \pm 1.89  (3.24, 8.48)$	-3.33
Neck	Rt. Eye (2)	$2.62 \pm 0.40 \ (2.06, 3.18)$	$5.10 \pm 0.26  (4.73,  5.46)$	-2.48
	Lt. eye (2)	$2.35 \pm 0.79  (1.26, 3.44)$	$6.31 \pm 0.44  (5.70, 6.93)$	-3.96
	Mandible (2)	$1.28 \pm 0.31 \ (0.85, 1.71)$	$3.50 \pm 0.57 (2.71, 4.28)$	-2.22
Breast	Heart (12)	$4.74 \pm 2.22 \ (3.48, 5.99)$	$16.66 \pm 5.07 (13.79, 19.53)$	-11.92

	Rt. Lung (12)	$3.93 \pm 2.16 (2.71, 5.15)$	$6.54 \pm 3.63 \ (4.48, 8.59)$	-2.61
	Lt. Lung (12)	$2.65 \pm 0.62  (2.30,  3.00)$	$2.94 \pm 0.55 \ (2.63, 3.25)$	-0.29
Abdom	Liver (3)	$4.17 \pm 1.36 (2.63, 5.74)$	$11.39 \pm 11.38 (-1.48, 24.27)$	-7.22
en	Rt. Kidney	$4.30 \pm 2.32 (1.68, 6.91)$	$6.81 \pm 3.43 \ (2.94, 10.69)$	-2.51
	(3)			
	Lt. kidney	$3.39 \pm 1.05 (2.20, 4.47)$	$5.59 \pm 3.12 \ (2.06, 9.12)$	<b>-</b> 2.2
	(3)			
Pelvis	Bladder (9)	$3.80 \pm 1.03 \ (3.13, 4.47)$	$36.27 \pm 29.82 \ (16.79, 55.76)$	-32.47
	Rt. Femur	$12.40 \pm 9.95 (5.90, 18.90)$	$42.77 \pm 7.46 (37.89, 47.64)$	-30.37
	head (9)			
	Lt. Femur	$11.57 \pm 10.16 (4.94, 18.21)$	$42.54 \pm 6.74 (38.13, 46.94)$	-30.37
	head (9)			

■ Table 15. DSC for each organ by  $\ge 1, \le 2$  slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (9)	$0.97 \pm 0.01 \; (0.96,  0.98)$	$0.96 \pm 0.01 \ (0.95, 0.96)$	0.01
Neck	Rt. Eye (9)	$0.86 \pm 0.07  (0.78,  0.87)$	$0.80 \pm 0.06 \ (0.76,  0.84)$	0.06
	Lt. eye (9)	$0.79 \pm 0.08  (0.74,  0.84)$	$0.80 \pm 0.06 \ (0.76,  0.84)$	-0.01
	Mandible (9)	$0.91 \pm 0.03 \; (0.89,  0.93)$	$0.81 \pm 0.09 \; (0.75,  0.87)$	0.1
Breast	Heart (1)	0.93	0.69	0.24
	Rt. Lung (1)	0.98	0.97	0.01
	Lt. Lung (1)	0.97	0.97	0.00
Abdom	Liver (5)	$0.97 \pm 0.01 \ (0.95, 0.98)$	$0.88 \pm 0.02 \ (0.86, 0.91)$	0.09
en	Rt. Kidney	$0.90 \pm 0.01  (0.87,  0.93)$	$0.76 \pm 0.17  (0.61, 0.91)$	0.14
	(5)			
	Lt. kidney	$0.88 \pm 0.08  (0.80,  0.95)$	$0.86 \pm 0.08  (0.79,  0.93)$	0.02
	(5)			
Pelvis	Bladder (3)	$0.88 \pm 0.06  (0.81,  0.95)$	$0.05 \pm 0.24 \ (0.24, \ 0.77)$	0.38
	Rt. Femur	$0.76 \pm 0.10  (0.88, 0.65)$	$0.71 \pm 0.08  (0.59,  0.82)$	0.05
	head (3)			
	Lt. Femur	$0.71 \pm 0.02 \ (0.69, 0.74)$	$0.72 \pm 0.03 \; (0.68,  0.75)$	-0.01
	head (3)			

• Table 16. 95% HD (mm) for each organ by  $\ge 1$ ,  $\le 2$  slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (9)	$14.24 \pm 34.04$ (-8.0, 36.48)	$4.48 \pm 1.39 (3.55, 5.36)$	9.76
Neck	Rt. Eye (9)	$3.15 \pm 1.06 (2.46, 3.84)$	$4.23 \pm 1.32 (3.37, 5.09)$	-1.08
	Lt. eye (9)	$3.58 \pm 1.60 \ (2.54, 4.63)$	$5.57 \pm 3.64 (3.29, 8.04)$	-1.99
	Mandible (9)	$1.93 \pm 0.60  (1.53,  2.32)$	$6.06 \pm 5.98  (2.15, 9.97)$	<b>-</b> 4.13
Breast	Heart (1)	8	15.93	<b>-</b> 7.93
]	Rt. Lung (1)	2	5.33	-3.33
	Lt. Lung (1)	2	2.18	-0.18
Abdom	Liver (5)	$14.72 \pm 25.47$ (-7.61,	$30.88 \pm 19.29 (13.97, 47.79)$	-16.16
en		37.05)		
	Rt. Kidney	$13.10 \pm 17.17$ (-1.95,	$18.69 \pm 15.09 (5.46, 31.91)$	-5.59
	(5)	28.15)		
	Lt. kidney	$7.50 \pm 7.90 \ (0.58, 14.42)$	$13.08 \pm 9.35 \ (4.88, 21.27)$	-5.58
	(5)			
Pelvis	Bladder (3)	$10.11 \pm 6.48  (1.13,  19.09)$	$33.06 \pm 9.55 (46.29, 19.82)$	-22.95
	Rt. Femur	$16.16 \pm 16.74$ (-7.04,	$16.27 \pm 21.85 (-14.01,$	-0.11
	head (3)	39.36)	46.56)	
	Lt. Femur	$73.29 \pm 64.05$ (-15.48,	$34.0 \pm 8.21 \ (22.62, 45.38)$	39.29
	head (3)	162.06)		

• Table 17. DSC for each organ by >2,  $\le 3$  slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (9)	$0.98 \pm 0.01 \ (0.97, 0.98)$	$0.96 \pm 0.01  (0.95, 0.96)$	0.02
Neck	Rt. Eye (9)	$0.84 \pm 0.08  (0.79,  0.90)$	$0.79 \pm 0.08  (0.74,  0.84)$	0.05
	Lt. eye (9)	$0.74 \pm 0.1 \ (0.67, 0.80)$	$0.72 \pm 0.18  (0.61,  0.84)$	0.02
	Mandible (9)	$0.94 \pm 0.03 \; (0.92,  0.96)$	$0.88 \pm 0.03 \; (0.85, 0.90)$	0.06
Breast	Heart (20)	$0.95 \pm 0.02 \ (0.94, \ 0.96)$	$0.81 \pm 0.10  (0.77,  0.86)$	0.14
	Rt. Lung	$0.97 \pm 0.01 \ (0.97, 0.98)$	$0.96 \pm 0.02  (0.95,  0.97)$	0.01
	(20)			
	Lt. Lung	$0.97 \pm 0.02 \ (0.96, 0.97)$	$0.95 \pm 0.03 \ (0.94, 0.97)$	0.02
	(20)			
Abdom	Liver (15)	$0.96 \pm 0.01 \ (0.95, 0.96)$	$0.88 \pm 0.07  (0.84, 0.92)$	0.08
en	Rt. Kidney	$0.90 \pm 0.02 \ (0.89, 0.92)$	$0.75 \pm 0.02  (0.65, 0.85)$	0.15
	(15)			
	Lt. kidney	$0.91 \pm 0.04  (0.89,  0.92)$	$0.78 \pm 0.13 \; (0.71,  0.85)$	0.13
	(15)			
Pelvis	Bladder (24)	$0.89 \pm 0.16  (0.83,  0.95)$	$0.48 \pm 0.28  (0.37,  0.59)$	0.41
	Rt. Femur	$0.88 \pm 0.09  (0.84,  0.91)$	$0.57 \pm 0.10  (0.53,  0.61)$	0.31
	head (24)			
	Lt. Femur	$0.88 \pm 0.09  (0.84,  0.91)$	$0.54 \pm 0.12  (0.50, 0.59)$	0.34
	head (24)		,	

• Table 18. 95% HD (mm) for each organ by >2,  $\le 3$  slice thickness

		AVIEW		Difference
Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (9)	$2.29 \pm 0.67  (1.85, 2.73)$	$5.28 \pm 3.29 (3.13, 7.43)$	-2.99
Neck	Rt. Eye (9)	$2.91 \pm 1.12 (2.18, 3.64)$	$4.56 \pm 1.58  (3.53, 5.60)$	-1.65
	Lt. eye (9)	$9.77 \pm 18.56 (-2.35, 21.9)$	$11.80 \pm 17.47  (0.38, 23.21)$	-2.03
	Mandible (9)	$1.45 \pm 0.51  (1.11,  1.79)$	$3.71 \pm 1.71 \ (2.59, 4.82)$	-2.26
Breast	Heart (20)	$5.11 \pm 2.56 (3.99, 6.23)$	$18.12 \pm 4.84  (16.0, 20.24)$	-13.01
	Rt. Lung	$3.48 \pm 1.77  (2.71, 4.26)$	$6.94 \pm 3.25 \ (5.52, 8.67)$	-3.46
	(20)			
	Lt. Lung	$2.83 \pm 0.50 \ (2.61, 3.04)$	$3.29 \pm 0.95 \ (2.87, 3.70)$	-0.46
	(20)			
Abdom	Liver (15)	$3.99 \pm 1.51 \ (3.22, 4.75)$	$20.99 \pm 16.1 (12.85, 29.14)$	-17
en	Rt. Kidney	$3.99 \pm 1.16 (3.40, 4.57)$	$13.43 \pm 14.1 (6.32, 20.55)$	<b>-</b> 9.44
	(15)			
	Lt. kidney	$4.35 \pm 2.85 \ (2.91, 5.79)$	$14.46 \pm 10.63 \ (9.08, 19.83)$	-10.11
	(15)			
Pelvis	Bladder (24)	$6.81 \pm 8.68  (3.34,  10.29)$	$30.16 \pm 24.80 \ (20.02, 40.30)$	-23.35
	Rt. Femur	$10.01 \pm 8.79  (6.63,  13.39)$	$41.54 \pm 8.85 (38.07, 45.01)$	-31.53
	head (24)			
	Lt. Femur	$10.51 \pm 9.74  (6.76, 14.25)$	$41.95 \pm 8.57 (38.59, 45.31)$	-31.44
	head (24)			

• Table 19. DSC for each oragan. by >3,  $\le 4$  slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (7)	$0.96 \pm 0.01 \ (0.96, 0.97)$	$0.96 \pm 0.00  (0.96,  0.97)$	0.00
Neck	Rt. Eye (7)	$0.68 \pm 0.07  (0.63,  0.74)$	$0.81 \pm 0.05 \; (0.78,  0.85)$	-0.13
	Lt. eye (7)	$0.59 \pm 0.1 \ (0.51, 0.66)$	$0.78 \pm 0.06 \; (0.74,  0.82)$	-0.19
	Mandible (7)	$0.87 \pm 0.07  (0.82, 0.92)$	$0.80 \pm 0.06  (0.76,  0.84)$	0.07
Breast	Heart (10)	$0.94 \pm 0.02 \ (0.93, \ 0.95)$	$0.70 \pm 0.09  (0.64,  0.75)$	0.24
	Rt. Lung	$0.98 \pm 0.0 \ (0.98, 0.99)$	$0.96 \pm 0.01  (0.96,  0.97)$	0.02
Į.	(10)			
	Lt. Lung (10)	$0.97 \pm 0.03 \; (0.95,  0.99)$	$0.96 \pm 0.03 \; (0.95,  0.98)$	0.01
Abdom	Liver (1)	$0.97 \pm 0.01 \ (0.95, 0.98)$	0.92	0.05

en	Rt. Kidney	$0.90 \pm 0.01  (0.87,  0.93)$	0.89	0.01
	(1)			
	Lt. kidney	$0.88 \pm 0.08  (0.80, 0.95)$	0.88	0.00
	(1)			
Pelvis	Bladder (2)	$0.88 \pm 0.06  (0.81, 0.95)$	$0.37 \pm 0.17  (0.13,  0.60)$	0.51
	Rt. Femur	$0.76 \pm 0.10  (0.88, 0.65)$	$0.63 \pm 0.24  (0.29,  0.96)$	0.13
	head (2)			
	Lt. Femur	$0.71 \pm 0.02 \ (0.69, 0.74)$	$0.52 \pm 0.19  (0.26,  0.79)$	0.19
	head (2)			

• Table 20. 95% HD (mm) for each oragan. By >3, ≤4 slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (7)	$3.45 \pm 1.18 (2.58, 4.33)$	$3.94 \pm 0.80 \ (3.35, 4.54)$	-0.49
Neck	Rt. Eye (7)	$5.35 \pm 1.15 \ (4.5, 6.2)$	$4.32 \pm 1.27 \ (3.38, 5.27)$	1.03
	Lt. eye (7)	$5.63 \pm 1.15  (4.78, 6.48)$	$5.2 \pm 2.41 (3.41, 6.98)$	0.43
	Mandible (7)	$2.83 \pm 2.0 \ (1.36, 4.31)$	$73.16 \pm 176.29$ (-57.43,	-70.33
			203.76)	
Breast	Heart (10)	$8.13 \pm 6.34 (4.2, 12.06)$	$19.84 \pm 5.79  (16.25, 23.43)$	-11.71
	Rt. Lung	$1.61 \pm 0.43 \ (1.33, 1.89)$	$7.37 \pm 2.43 \ (5.86, 8.88)$	-5.76
	(10)			
	Lt. Lung	$10.26 \pm 25.24$ (-6.23,	$8.18 \pm 10.41  (1.72, 14.63)$	2.08
	(10)	26.75)		
Abdom	Liver (1)	3.27	32.82	-29.55
en	Rt. Kidney	3.27	5.88	-2.61
	(1)			
	Lt. kidney	3.27	6.55	-3.28
	(1)			
Pelvis	Bladder (2)	$18.16 \pm 14.90$ (-2.49,	$68.99 \pm 15.60 (47.37, 90.61)$	<b>-</b> 50.83
		38.81)		
	Rt. Femur	$14.21 \pm 10.85$ (-0.82,	$19.92 \pm 4.20  (14.11, 25.74)$	-5.71
	head (2)	29.24)		
	Lt. Femur	$32.33 \pm 36.47$ (-18.22,	$50.32 \pm 16.58 (27.34, 73.29)$	-17.99
	head (2)	82.87)		

• Table 21. DSC for each oragan. by >4,  $\le$ 5slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain	N/A	N/A	
Neck	Rt. Eye	N/A	N/A	
	Lt. eye	N/A	N/A	
	Mandible	N/A	N/A	
Breast	Heart (1)	0.82	0.81	0.01
	Rt. Lung	N/A	N/A	
	Lt. Lung	N/A	N/A	
Abdom	Liver (5)	$0.96 \pm 0.0  (0.96, 0.97)$	$0.84 \pm 0.04  (0.81, 0.87)$	0.12
en	Rt. Kidney	$0.91 \pm 0.02  (0.89, 0.92)$	$0.72 \pm 0.16 \; (0.57,  0.86)$	0.19
	(5)			
	Lt. kidney	$0.91 \pm 0.01 \; (0.89,  0.92)$	$0.74 \pm 0.08  (0.67,  0.81)$	0.17
	(5)			
Pelvis	Bladder (6)	$0.91 \pm 0.09  (0.84, 0.98)$	$0.69 \pm 0.12  (0.59,  0.78)$	0.22
	Rt. Femur	$0.90 \pm 0.06  (0.85, 0.95)$	$0.55 \pm 0.06  (0.50, 0.60)$	0.35
	head (6)			
	Lt. Femur	$0.90 \pm 0.05  (0.86, 0.95)$	$0.55 \pm 0.05 \ (0.51, 0.59)$	0.35
	head (6)			

• Table 22. 95% HD (mm) for each oragan. by >4,  $\le$ 5 slice thickness

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain	N/A	N/A	
Neck	Rt. Eye	N/A	N/A	
]	Lt. eye	N/A	N/A	
	Mandible	N/A	N/A	
Breast	Heart (1)	6.68	25	-18.32
]	Rt. Lung	N/A	N/A	
	Lt. Lung	N/A	N/A	
Abdom	Liver (5)	$9.97 \pm 11.42 (-0.04, 19.98)$	$27.57 \pm 5.71 \ (22.57, 32.58)$	-17.6
en	Rt. Kidney	$9.86 \pm 11.31 (-0.05, 19.77)$	$15.91 \pm 10.03 \ (7.12, 24.70)$	6.05
	(5)			
	Lt. kidney	$6.56 \pm 3.48  (3.51, 9.60)$	$21.18 \pm 12.75 \ (10.0, 32.36)$	-14.62
	(5)			
Pelvis	Bladder (6)	$5.1 \pm 3.86  (2.01, 8.19)$	$19.33 \pm 6.58  (14.06, 24.60)$	-14.23
	Rt. Femur	$9.07 \pm 8.89  (1.96,  16.19)$	$42.35 \pm 5.09 (38.28, 46.42)$	-33.28
	head (6)			
	Lt. Femur	$8.71 \pm 9.21 \ (1.35, 16.08)$	$42.84 \pm 4.11 \ (36.55, 46.13)$	<b>-</b> 34.13
	head (6)			

• Table 23. DSC for each oragan. By soft kernel

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (12)	$0.97 \pm 0.01 \ (0.96, 0.98)$	$0.96 \pm 0.01 \ (0.95, 0.96)$	0.01
Neck	Rt. Eye (12)	$0.82 \pm 0.09  (0.77,  0.88)$	$0.78 \pm 0.06  (0.75, 0.82)$	0.04
	Lt. eye (12)	$0.73 \pm 0.14  (0.65,  0.81)$	$0.73 \pm 0.15  (0.64, 0.81)$	0.00
	Mandible	$0.92 \pm 0.05 \; (0.89,  0.95)$	$0.85 \pm 0.06  (0.82, 0.89)$	0.07
	(12)			
Breast	Heart (17)	$0.95 \pm 0.02 \; (0.94,  0.95)$	$0.80 \pm 0.12  (0.75, 0.86)$	0.15
	Rt. Lung	$0.98 \pm 0.01 \; (0.97,  0.98)$	$0.96 \pm 0.01  (0.96, 0.97)$	0.02
	(17)			
	Lt. Lung	$0.97 \pm 0.01 \ (0.97, 0.98)$	$0.96 \pm 0.03 \; (0.94,  0.97)$	0.01
	(17)			
Abdom	Liver (4)	$0.96 \pm 0.01  (0.94,  0.97)$	$0.88 \pm 0.08  (0.80, 0.96)$	0.08
en	Rt. Kidney	$0.92 \pm 0.02 \; (0.91,  0.94)$	$0.80 \pm 0.17  (0.64, 0.97)$	0.12
	(4)			
	Lt. kidney	$0.93 \pm 0.02  (0.91,  0.96)$	$0.85 \pm 0.12  (0.73,  0.97)$	0.08
	(4)			
Pelvis	Bladder (15)	$0.91 \pm 0.08  (0.87,  0.95)$	$0.47 \pm 0.25 \ (0.34, 0.59)$	0.44
	Rt. Femur	$0.83 \pm 0.11 \; (0.77,  0.89)$	$0.61 \pm 0.12  (0.55, 0.67)$	0.22
	head (14)			
	Lt. Femur	$0.84 \pm 0.10 \ (0.79,  0.89)$	$0.58 \pm 0.09  (0.53,  0.63)$	0.26
	head (14)			

• Table 24. 95% HD (mm) for each oragan. By soft kernel

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (12)	$2.84 \pm 1.40 \ (2.05, 3.63)$	$5.44 \pm 2.87 \ (3.82, 7.07)$	-2.60
Neck	Rt. Eye (12)	$3.29 \pm 1.50 (2.44, 4.14)$	$4.58 \pm 1.21 \ (3.89, 5.26)$	-1.29
]	Lt. eye (12)	$8.28 \pm 16.10 (-0.83, 17.39)$	$10.15 \pm 15.15 \ (1.58, 18.72)$	-1.87
	Mandible	$1.96 \pm 1.72 \ (0.98, 2.93)$	$4.28 \pm 3.05 \ (2.56, 6.00)$	-2.32
	(12)			
Breast	Heart (17)	$6.43 \pm 5.29 (3.91, 8.94)$	$18.13 \pm 5.42 \ (15.56, 20.71)$	-11.70
	Rt. Lung	$3.34 \pm 2.14 (2.29, 4.39)$	$6.53 \pm 3.20 \ (4.96, 8.10)$	-3.19
	(17)			
	Lt. Lung	$2.45 \pm 0.76 \ (2.07, 2.82)$	$3.05 \pm 0.57 \ (2.77, 3.33)$	-0.60
	(17)			
Abdom	Liver (4)	$3.75 \pm 1.40 (2.38, 5.12)$	$18.46 \pm 16.92 \ (1.88, 35.04)$	-14.71

en	Rt. Kidney	$3.88 \pm 2.06  (1.86, 5.90)$	$6.61 \pm 2.83 \ (3.84, 9.38)$	<b>-</b> 2.73
	(4)			
	Lt. kidney	$3.17 \pm 0.97 (2.21, 4.12)$	$5.86 \pm 2.60 (3.31, 8.40)$	-2.69
	(4)			
Pelvis	Bladder (15)	$14.83 \pm 30.69$ (-1.24,	$38.59 \pm 24.31 \ (25.85, 51.33)$	-23.76
		30.91)		
	Rt. Femur	$12.42 \pm 11.32 (6.27, 18.57)$	$36.54 \pm 15.01$ (28.38, 44.70)	-24.12
	head (14)			
	Lt. Femur	$12.94 \pm 12.92 (5.62, 20.25)$	$41.20 \pm 6.61$ (37.46, 44.94)	-28.26
	head (14)			

• Table 25. DSC for each oragan. By standard kernel

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (4)	$0.97 \pm 0.01 \ (0.96, 0.98)$	$0.96 \pm 0.00  (0.96,  0.97)$	0.01
Neck	Rt. Eye (4)	$0.67 \pm 0.11 \ (0.57, 0.77)$	$0.79 \pm 0.03 \; (0.76,  0.81)$	-0.12
	Lt. eye (4)	$0.62 \pm 0.13 \; (0.49,  0.74)$	$0.76 \pm 0.04  (0.73,  0.80)$	-0.14
	Mandible (4)	$0.92 \pm 0.04 \ (0.88, 0.96)$	$0.82 \pm 0.03 \; (0.79,  0.85)$	0.10
Breast	Heart (6)	$0.92 \pm 0.05 \ (0.88, 0.96)$	$0.70 \pm 0.07  (0.64,  0.76)$	0.22
	Rt. Lung (6)	$0.99 \pm 0.00  (0.98,  0.99)$	$0.96 \pm 0.01 \ (0.95, 0.97)$	0.03
	Lt. Lung (6)	$0.96 \pm 0.05 \ (0.92, \ 1.00)$	$0.95 \pm 0.03 \; (0.92,  0.98)$	0.01
Abdom	Liver (1)	0.97	0.85	0.12
en	Rt. Kidney	0.91	0.50	0.41
	(1)			
	Lt. kidney	0.89	0.88	0.01
	(1)			
Pelvis	Bladder (4)	$0.73 \pm 0.36  (0.38,  1.09)$	$0.59 \pm 0.22 \ (0.37, \ 0.81)$	0.14
	Rt. Femur	$0.84 \pm 0.14 \ (0.70, \ 0.99)$	$0.56 \pm 0.07 \ (0.49, 0.63)$	0.28
	head (4)			
	Lt. Femur	$0.81 \pm 0.17  (0.64,  0.98)$	$0.53 \pm 0.11 \ (0.43, 0.63)$	0.28
	head (4)			

• Table 26. 95% HD (mm) for each oragan. By standard kernel

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (4)	$2.82 \pm 0.63 \ (2.21, 3.44)$	$3.96 \pm 0.54 \ (3.43, 4.48)$	-1.14
Neck	Rt. Eye (4)	$5.48 \pm 1.25 \ (4.26, 6.70)$	$5.06 \pm 1.62  (3.47, 6.65)$	0.42
	Lt. eye (4)	$5.77 \pm 1.19 (4.60, 6.94)$	$7.67 \pm 5.05 \ (2.72, 12.62)$	1.90
	Mandible (4)	$1.90 \pm 0.83 \ (1.09, 2.71)$	$5.14 \pm 3.19 \ (2.01, 8.26)$	-3.24
Breast	Heart (6)	$5.93 \pm 2.43 \ (3.99, 7.87)$	$19.18 \pm 6.49  (13.99, 24.38)$	-13.25
	Rt. Lung (6)	$1.91 \pm 0.78  (1.29,  2.53)$	$7.94 \pm 2.82 \ (5.68, 10.20)$	-6.03
	Lt. Lung (6)	$14.70 \pm 30.79$ (-9.94,	$11.38 \pm 12.80 \ (1.14, 21.63)$	3.32
		39.34)		
Abdom	Liver (1)	3.27	32.82	-29.55
en	Rt. Kidney	3.27	5.88	-2.61
	(1)			
	Lt. kidney	3.27	6.55	-3.28
	(1)			
Pelvis	Bladder (4)	$10.49 \pm 10.06  (0.63, 20.36)$	$31.33 \pm 33.16 (-1.17, 63.83)$	-20.84
	Rt. Femur	$11.72 \pm 10.67  (1.26, 22.18)$	$36.28 \pm 10.56 (25.93, 46.62)$	-24.56
	head (4)			
	Lt. Femur	$23.28 \pm 24.30$ (-0.54,	$46.11 \pm 12.11 (34.24, 57.98)$	-22.83
	head (4)	47.10)		

• Table 27. DSC for each oragan. By medium kernel

Part	Organ	AVIEW	Predicate device	Difference			
Head&	Brain (4)	$0.97 \pm 0.01  (0.97, 0.98)$	$0.96 \pm 0.00  (0.96, 0.97)$	0.01			

Neck	Rt. Eye (4)	$0.85 \pm 0.05  (0.80, 0.90)$	$0.77 \pm 0.05 \ (0.72, 0.82)$	0.08
	Lt. eye (4)	$0.78 \pm 0.08  (0.71,  0.86)$	$0.77 \pm 0.05 \ (0.72, 0.82)$	0.01
	Mandible (4)	$0.91 \pm 0.04  (0.87,  0.94)$	$0.81 \pm 0.13 \; (0.68, 0.94)$	0.10
Breast	Heart (9)	$0.94 \pm 0.02 \; (0.93,  0.96)$	$0.75 \pm 0.10  (0.69, 0.82)$	0.19
	Rt. Lung (9)	$0.97 \pm 0.01 \ (0.96, 0.98)$	$0.95 \pm 0.02  (0.94,  0.97)$	0.02
	Lt. Lung (9)	$0.96 \pm 0.02 \; (0.95,  0.97)$	$0.95 \pm 0.02  (0.94,  0.97)$	0.01
Abdom	Liver (16)	$0.96 \pm 0.01 \ (0.96, 0.97)$	$0.86 \pm 0.06  (0.84, 0.89)$	0.10
en	Rt. Kidney	$0.91 \pm 0.02 \ (0.90, 0.92)$	$0.77 \pm 0.12  (0.72,  0.83)$	0.14
	(16)			
	Lt. kidney	$0.91 \pm 0.03 \; (0.89,  0.92)$	$0.78 \pm 0.08  (0.74,  0.82)$	0.13
	(16)			
Pelvis	Bladder (17)	$0.90 \pm 0.07  (0.87,  0.93)$	$0.55 \pm 0.27  (0.42, 0.67)$	0.35
	Rt. Femur	$0.90 \pm 0.06  (0.87,  0.93)$	$0.56 \pm 0.10  (0.51, 0.61)$	0.34
	head (19)			
	Lt. Femur	$0.89 \pm 0.09  (0.85,  0.93)$	$0.53 \pm 0.13 \; (0.47,  0.58)$	0.36
	head (19)			

• Table 28. 95% HD (mm) for each oragan. By medium kernel

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Part	Organ	AVIEW Predicate device		Difference	
Head&	Brain (4)	$28.16 \pm 51.23 \ (-22.04, \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$		24.88	
Neck		78.36)			
	Rt. Eye (4)	$2.77 \pm 0.37 (2.42, 3.13)$	$4.75 \pm 1.50  (3.29, 6.22)$	-1.98	
	Lt. eye (4)	$3.26 \pm 0.53 \ (2.74, 3.78)$	$5.30 \pm 2.18 (3.16, 7.44)$	-2.04	
	Mandible (4)	$1.91 \pm 0.51  (1.42, 2.41)$	$5.04 \pm 4.11 (1.01, 9.08)$	-3.13	
Breast	Heart (9)	$5.92 \pm 2.97 (3.98, 7.86)$	$20.17 \pm 3.52 (17.86, 22.47)$	-14.25	
	Rt. Lung (9)	$2.73 \pm 0.61 \ (2.33, 3.13)$	$7.30 \pm 2.63 \ (5.58, 9.02)$	-4.57	
	Lt. Lung (9)	$2.97 \pm 0.26 \ (2.80, 3.14)$	$3.63 \pm 1.25 (2.81, 4.45)$	-0.66	
Abdom	Liver (16)	$9.10 \pm 15.19  (1.66, 16.55)$	$29.04 \pm 14.54$ (21.92, 36.16)	<b>-</b> 19.94	
en	Rt. Kidney	$8.40 \pm 11.42 (2.81, 14.00)$	$15.54 \pm 9.83 \ (10.73, 20.36)$	-7.14	
	(16)				
	Lt. kidney	$5.47 \pm 3.29 \ (3.86, 7.08)$	$18.94 \pm 10.02 (14.03, 23.85)$	-13.47	
	(16)				
Pelvis	Bladder (17)	$7.04 \pm 9.22 \ (2.65, 11.42)$	$23.99 \pm 17.93 (15.71, 32.27)$	-16.95	
	Rt. Femur	$8.01 \pm 6.47 (5.10, 10.92)$	$50.42 \pm 39.59 (32.13, 38.71)$	<b>-</b> 42.41	
	head (19)				
	Lt. Femur	$8.57 \pm 7.05 \ (5.40, 11.74)$	$41.98 \pm 9.27 (37.7, 46.27)$	-33.41	
	head (19)				

• Table 29. DSC for each oragan. By sharp kernel

Part	Organ	AVIEW	Predicate device	Difference
Head&	Brain (5)	$0.97 \pm 0.01 \ (0.96, 0.98)$	$0.96 \pm 0.01  (0.96, 0.97)$	0.01
Neck	Rt. Eye (5)	$0.77 \pm 0.07  (0.70,  0.83)$	$0.87 \pm 0.04  (0.84,  0.91)$	-0.10
	Lt. eye (5)	$0.71 \pm 0.07  (0.65,  0.77)$	$0.85 \pm 0.05  (0.81, 0.90)$	-0.14
	Mandible (5)	$0.88 \pm 0.06  (0.83,  0.93)$	$0.80 \pm 0.07  (0.74,  0.86)$	0.08
Breast	Heart	N/A	N/A	
	Rt. Lung	N/A	N/A	
	Lt. Lung	N/A	N/A	
Abdom	Liver (5)	$0.95 \pm 0.02 \ (0.93, \ 0.96)$	$0.91 \pm 0.06  (0.86, 0.96)$	0.04
en	Rt. Kidney	$0.87 \pm 0.03 \; (0.84,  0.90)$	$0.69 \pm 0.32  (0.40,  0.97)$	0.18
	(5)			
	Lt. kidney	$0.86 \pm 0.07  (0.79,  0.92)$	$0.76 \pm 0.21 \ (0.58, 0.95)$	0.10
	(5)			
Pelvis	Bladder	N/A	N/A	
	Rt. Femur	N/A	N/A	
	head			
	Lt. Femur	N/A	N/A	

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• Table 30. 95% HD (mm) for each oragan. By sharp kernel

Part	Organ	AVIEW Predicate device		Difference
Head&	Brain (5)	$3.00 \pm 0.42 \ (2.64, 3.37)$ $4.20 \pm 0.87 \ (3.44, 4.96)$		-1.20
Neck	Rt. Eye (5)	$3.90 \pm 1.24 \ (2.81, 4.99)$ $3.05 \pm 0.68 \ (2.45, 3.65)$		0.85
	Lt. eye (5)	$4.83 \pm 1.50  (3.52,  6.14)$	$4.83 \pm 1.50  (3.52, 6.14)$ $3.97 \pm 2.85  (1.47, 6.47)$	
	Mandible (5)	$2.30 \pm 0.41 \ (1.94, 2.66)$	$101.61 \pm 207.65$ (-80.40,	-99.31
			283.61)	
Breast	Heart	N/A	N/A	
	Rt. Lung	N/A	N/A	
	Lt. Lung	N/A	N/A	
Abdom	Liver (5)	$4.52 \pm 1.97  (2.79, 6.25)$	$13.74 \pm 12.22 \ (3.03, 24.45)$	<b>-</b> 9.22
en	Rt. Kidney	$4.92 \pm 1.69 (3.44, 6.40)$	$19.86 \pm 24.04 (-1.21, 40.93)$	-14.94
	(5)			
	Lt. kidney	$7.06 \pm 8.03 \ (0.02.\ 14.20)$	$12.32 \pm 12.74  (1.16, 23.48)$	-5.26
	(5)			
Pelvis	Bladder	N/A	N/A	
	Rt. Femur	N/A	N/A	
	head			
	Lt. Femur	N/A	N/A	
	head			

<sup>\*</sup> There are organs that aren' available in a certain range or vendor which the value was input as N/A

#### ◆ Number of samples for each analysis

Table 31.

each part	Head & Neck	Breast	Abdomen	Pelvis	Total
N	25	32	26	27	120
Each part by organs	Head & Neck	Breast	Abdomen	Pelvis	Total
N	100	94	78	109	
Each vendor	SIEMENS	GE	PHILIPS	TOSHIBA	Total
N	48	25	21	26	120
each slice thickness (mm)	≥1, ≤2	>2, ≤3	>3, ≤4	>4, ≤5	Total
N	18	70	20	12	120
Each kernel	SOFT	STANDARD	MEDIUM	SHARP	Total
N	47	15	48	20	120

### **10 CONCLUSIONS**

The new device and predicate device are substantially equivalent in the areas of technical characteristics, general functions, application, and intended use. The new device does not introduce a fundamentally new scientific technology, and the nonclinical tests demonstrate that the device is as safe and as effective as the predicate. Therefore, it is our opinion that the AVIEW RT ACS described in this submission is substantially equivalent to the predicate device.