QIW Session 5
Exploring New CT Imaging & AI Technical Opportunities

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Disclosures

• Accumetra, LLC shareholder
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• Kitware, Inc shareholder
CT Imaging Has Come A Long Way Over 51 Years
Photon Counting CT

Main Advantages

• In-plane Resolution
• Energy Resolution
• Detector Efficiency
Deep Learning AI CT Reconstruction

**Fig. 1.** Low dose FBP-DL chest (C) and abdomen (G) CT images show better denoising and artifact reduction compared to low-dose FBP (A, E) and low-dose C-IR (commercial/clinical iterative reconstruction) images (B, F). Chest (low dose: CTDIvol 1.1 mGy; normal dose: 9 mGy) and abdomen (low dose: CTDIvol 1.2 mGy; normal dose: 10 mGy) were performed with 120 kV, 0.9:1 pitch, gantry rotation time of 0.5 s, and automatic exposure control technique.
Exciting Times

• But as we have learned before, we need to verify the quality for each clinical application.
3D Printing
Thank You