



Weill Cornell Medical College



NewYork-Presbyterian
Phyllis and David Komansky
Center for Children's Health

Pediatric
Brain and Spine Center

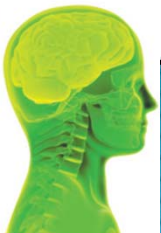
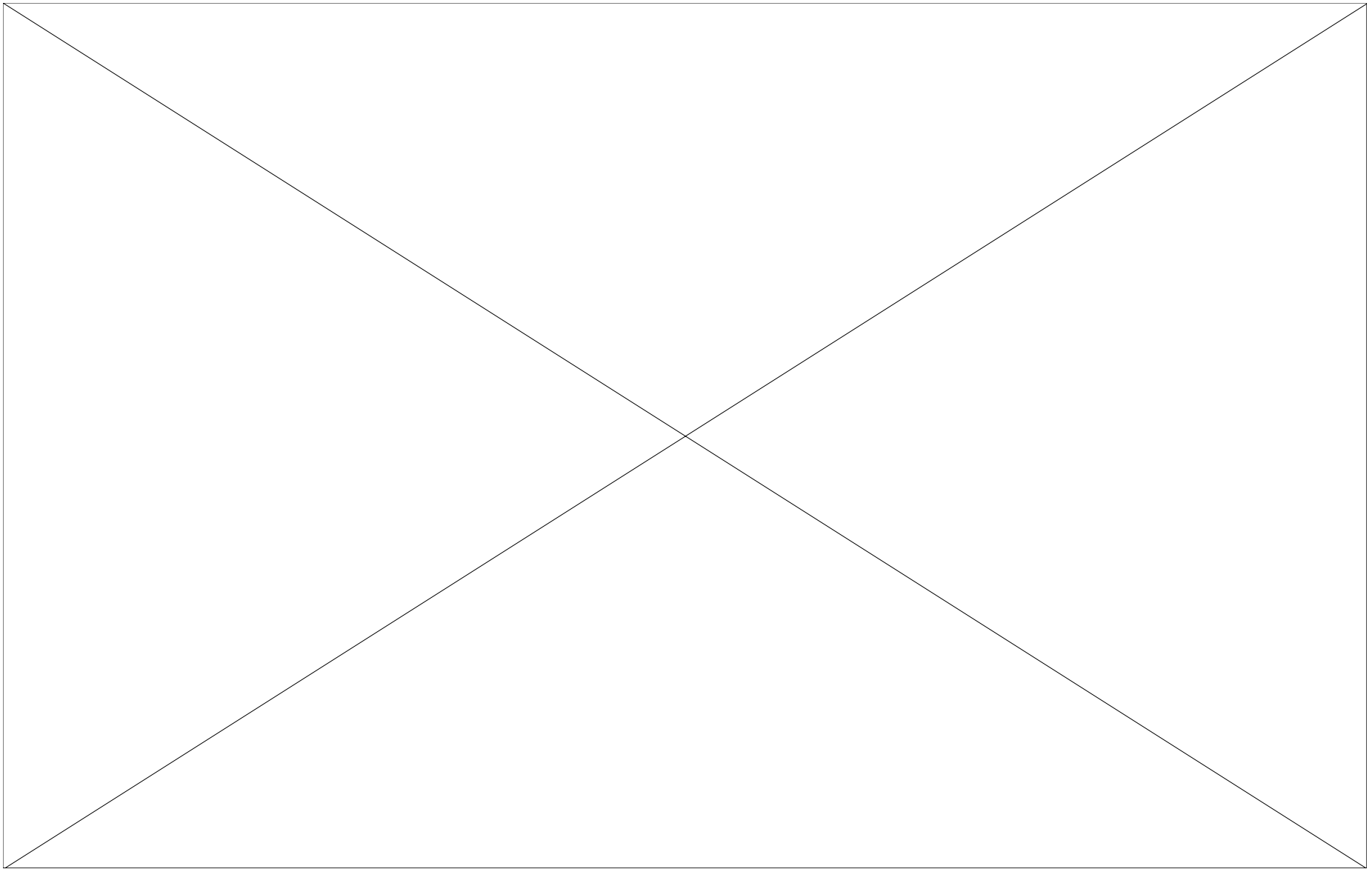


Imaging Alternatives to CT for Common Conditions

Linda A Heier MD, FRCP

Section Chief Neuroradiology



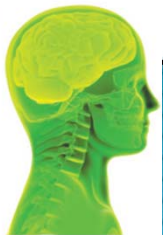
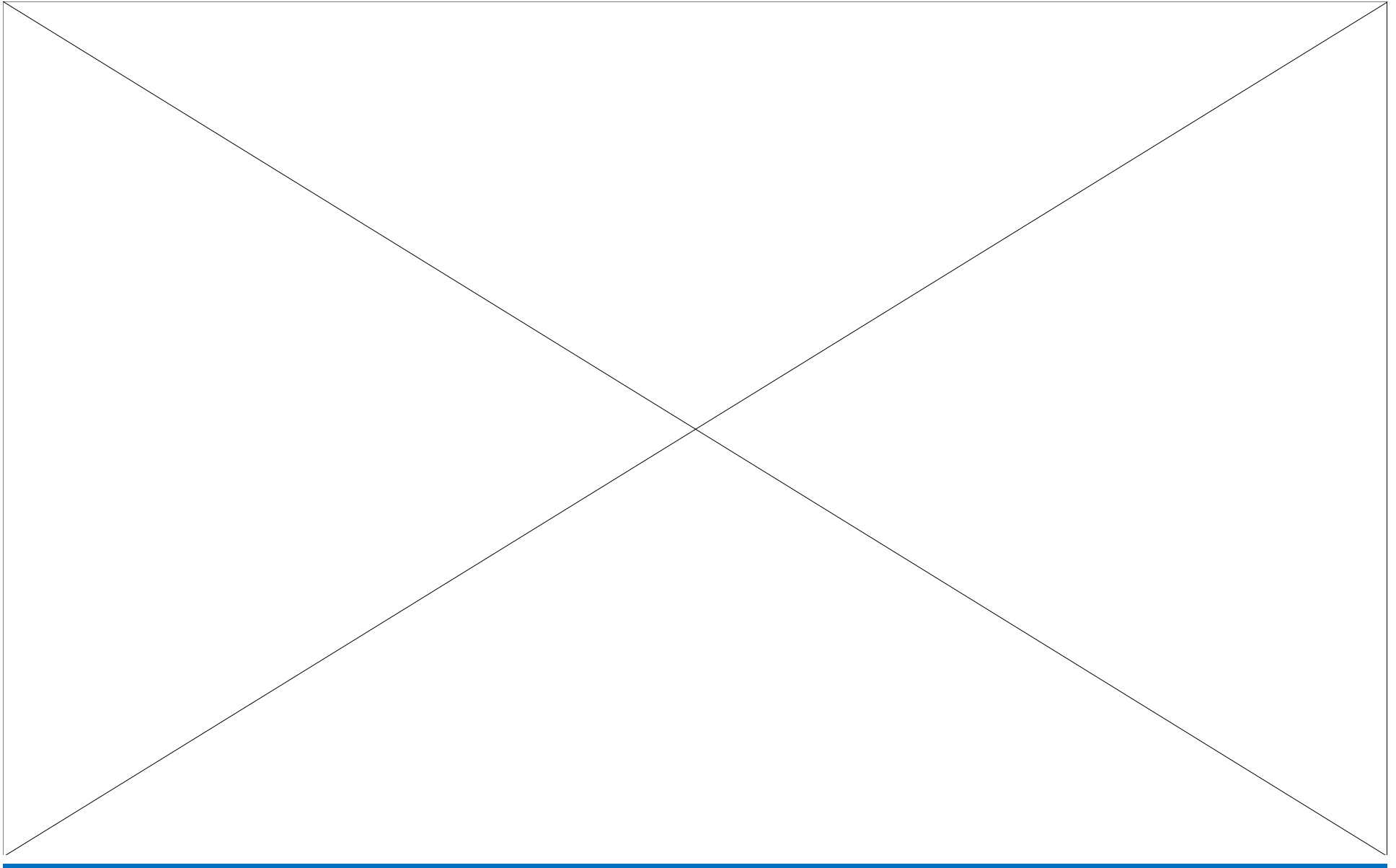


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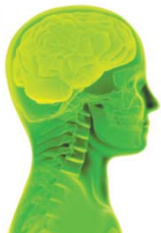
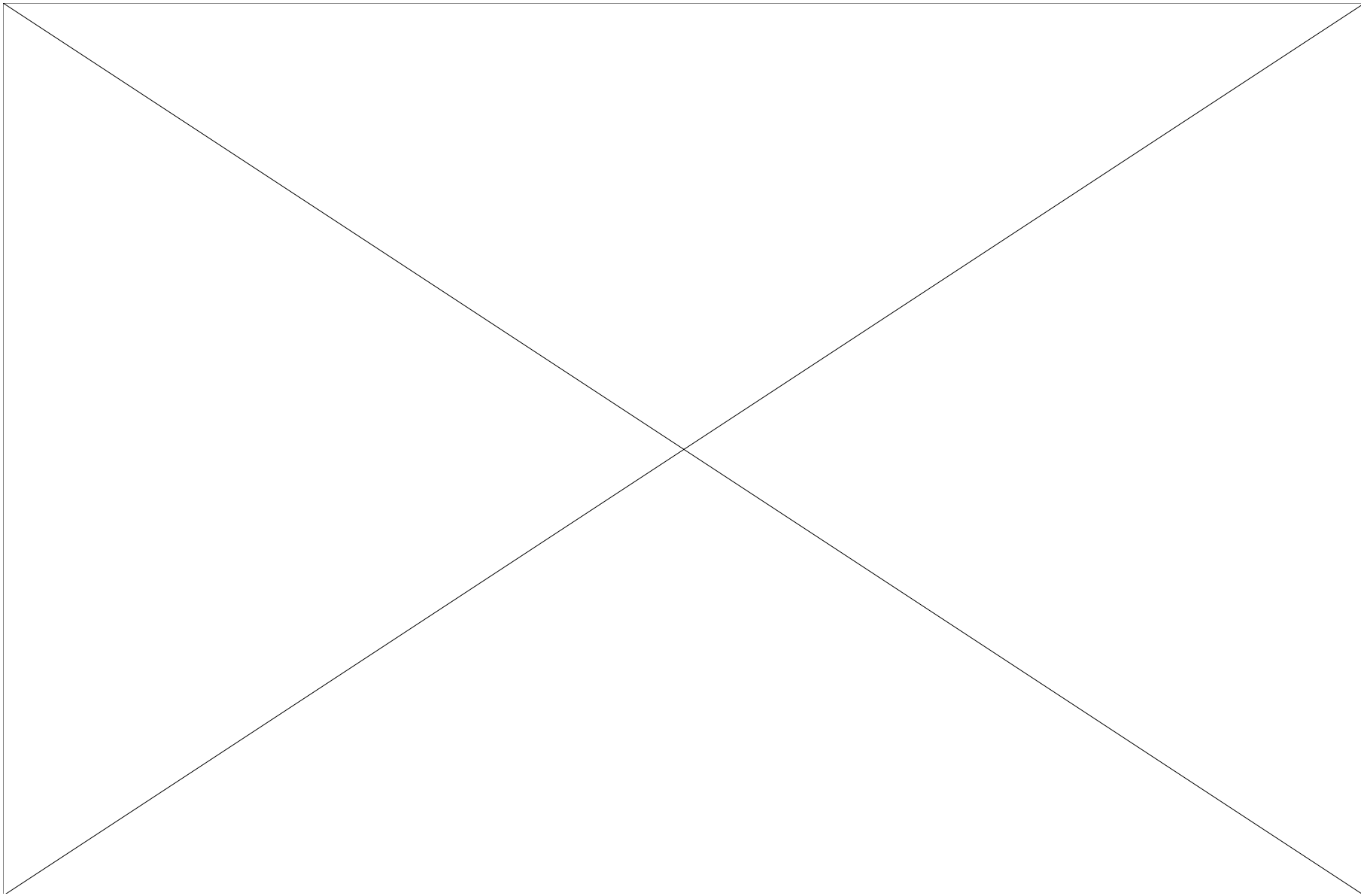


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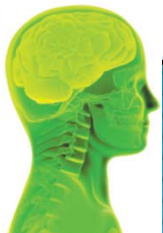
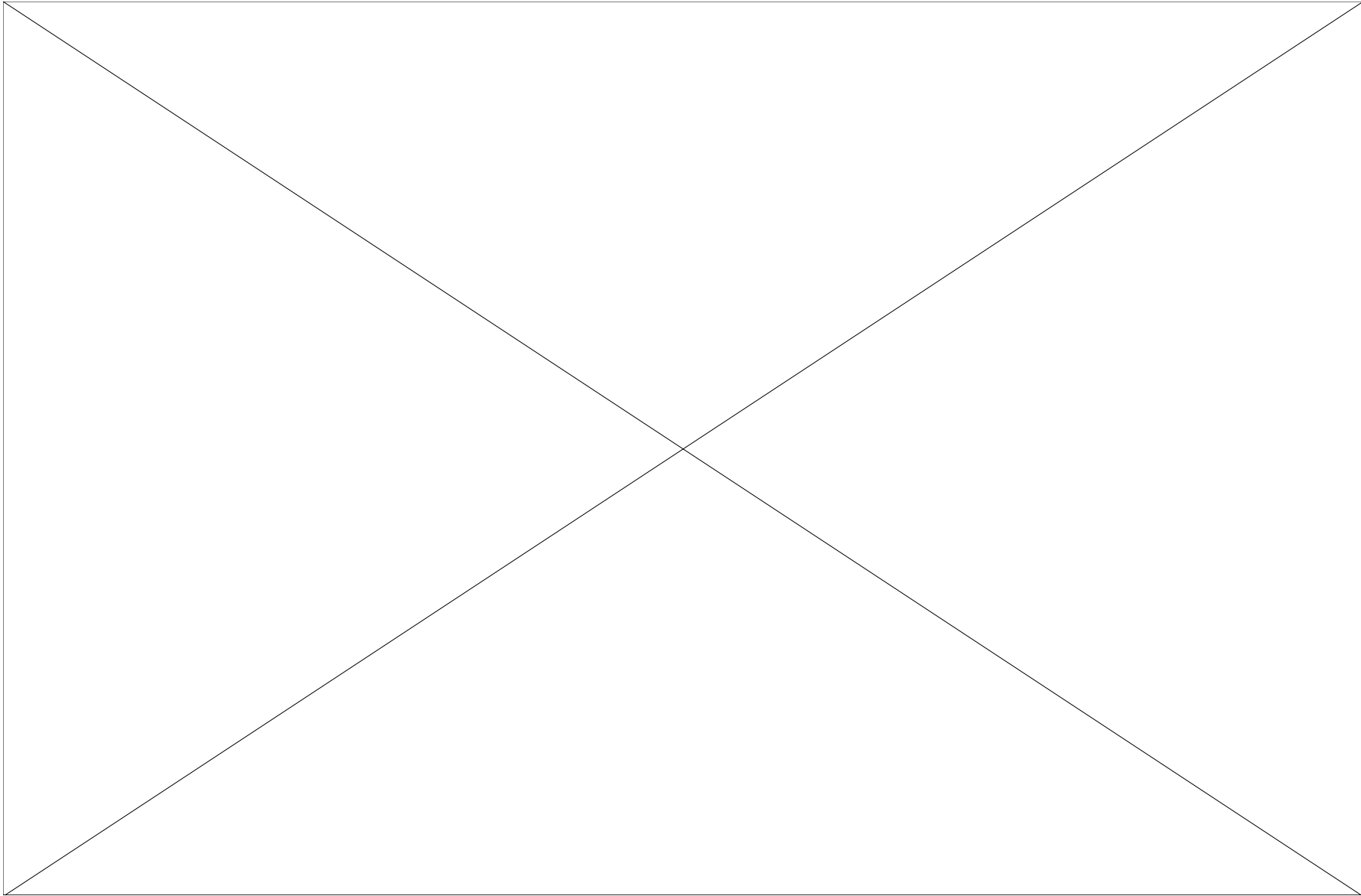


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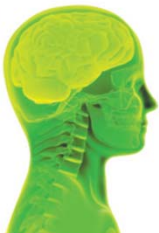


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Simplified Approach To Radiation Dose Measurements

- ▶ Historical Perspective
- ▶ Definitions
- ▶ Radiation Dose Update
- ▶ Regulatory Oversight



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Roentgen's Original Paper "On a New Kind of Rays" Published 28 December 1895

- ▶ Acute effects of radiation first observed in the use of X-rays when [Nikola Tesla](#) intentionally subjected his fingers to X-rays in 1896
- ▶ published his observations concerning the burns that developed (deterministic effects), though he attributed them to ozone rather than to X-rays
- ▶ Genetic (stochastic effects) only recognized in the 1920's



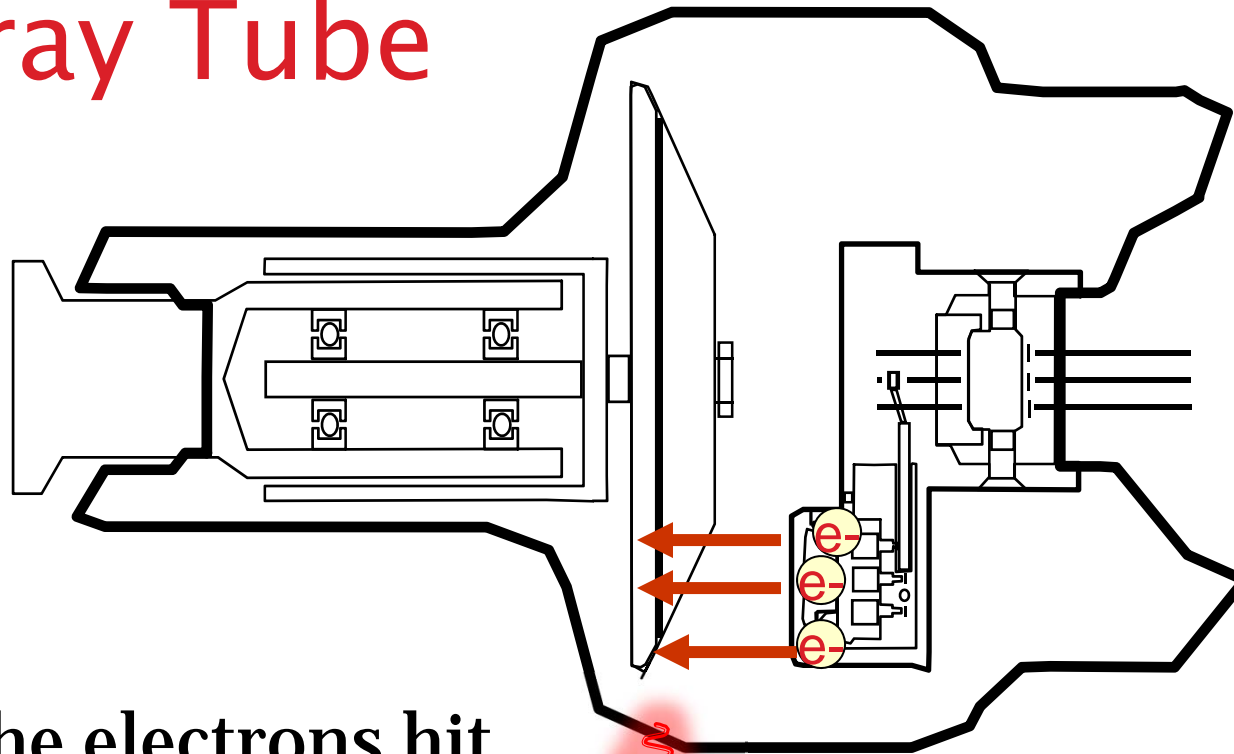
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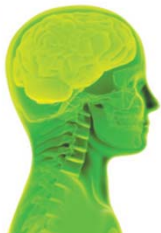
X-ray Tube



2. The electrons hit the target (anode) + and make X-rays

1. Electrons come from the filament (cathode) -

X-rays



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