Jonathan Craig
Class of 2019
Winner, Poetry Award

Cumming School of Medicine
University of Calgary
2016

Compton Scatter

$$\lambda' = \lambda + \frac{h}{m_e c}(1 - cos\theta)$$ [1]

The ray that penetrates within–
Embodying duality–
Imparts momentum beneath the skin
To send the electron spinning free.
The photon: scattered, stretched, and spent,
Attenuated from the beam,
Diverted from its former bent,
Never to appear upon the screen.
Trajectories are altered as disease collides
With lives and plans set forth in blindness of harsh fact.
The truth surrounding present pains, distress, torment,
Necrosing future plans with photon knife debrides.
A fate illuminated with each fresh impact:
Momentous hopes and plans are scattered, stretched, and spent.

[1] Compton scatter formula for the wavelength of the scattered photon (λ') as a function of the incident photon wavelength (λ), Planck's constant (h), electron rest mass (m_e), the speed of light (c), and the photon scattering angle (θ).