

LOW ENERGY EM WG WORKPLAN

- **Low Energy**
 - EPICS2017 models
 - New PhD student: Zhuxin Li @ CENBG, Oct. 2019 – Sep. 2022
 - ANSTO PIXE models
 - Paper published
 - PhD thesis of S. Baker @ Wollongong U.
 - Compton model by Jeremy
 - Complete recalculation of atomic electron momentum PDFs and Compton profiles for elements $Z=1$ to $Z=100$
- **Geant4-DNA**
 - Physics
 - Gas models for nanodosimetry @ IRSN
 - GNP models @ CENBG, Wollongong U., Ioannina U.
 - Elastic model for electrons in liquid water down to 10 eV @ CENBG
 - (CPA100 models for biological targets @ Toulouse U.)
 - Chemistry
 - Mathieu's IRT will be submitted for publication
 - TOPAS IRT being imported into Geant4-DNA
 - Influence of physics models & physico-chemical models on chemistry under investigation
 - Geometries
 - Library of geometries
 - Combination of geometries with IRT (alternative approaches)
 - DNA damage
 - First example released dhadamage1 by Hoang et al. @ IRSN
 - Other example based on fractal geometrical model of cell nucleus @ Melbourne, Wollongong U., NIRS, CENBG...
- **Merging of both EM WG under discussion at SB level**
 - 1 coord (VI), 3 deputy (DS, LP, SI)