

Working Groups

Animal Models and Co-Clinical Trials Working Group (AMCT WG)

The AMCT WG seeks to develop consensus on best practices for employing animal models in co-clinical trials.

The mission of the AMCT WG is to optimize murine models of cancer to mimic the biology and response to the treatment of human malignancies. The group aims to reach a consensus regarding best practices for employing animal models in co-clinical trials with preclinical quantitative imaging and to generate resources that facilitate the successful implementation of reproducible animal models in co-clinical studies. The AMCT WG considers current practices, strengths, and challenges of animal models used for co-clinical studies versus human clinical trials. Through participation in the AMCT WG, Associate Members would gain access to the wealth of experience of the group in applying a multitude of imaging technologies to diverse animal models treated with a variety of therapies. Associate Members may contribute expertise regarding their specific animal models and take advantage of CIRP resources to advance their own efforts in conducting co-clinical trials incorporating quantitative imaging.

Recent Consensus paper:

- Peehl DM, et al. Animal Models and Their Role in Imaging-assisted Co-clinical Trials. *Tomography* **2023**, 9, 657–680. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10037611/>

Imaging Acquisition and Data Process Working Group (IADP WG)

The IADP WG is focused on developing a consensus for designing, optimizing, and applying best practices for preclinical quantitative imaging to support co-clinical trials.

The mission of the IADP WG is to establish general guidelines and consensus in designing, optimizing, and applying best practices, for standardized operating procedures for preclinical quantitative imaging to support co-clinical trials, across different imaging modalities including MRI, CT, PET, and SPECT represented by the various groups in CIRP. An Associate Member of this IADP WG would not only benefit from the best practices for robust and repeatable quantitative imaging metrics but also contribute and influence the WG in developing consensus and further disseminating their research output.

Recent Consensus papers:

- Gammon ST, et al. An Online Repository for Pre-clinical Imaging Protocols (PIPs). *Tomography* **2023**, 9, 750–758. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10145184/>
- Malyarenko D, et al. Evaluation of ADC Repeatability and Reproducibility of Pre-Clinical MRIs Using Standardized Procedures and DWI Phantom. *Tomography* **2023**, 9, 375–386. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9964373/>

Informatics and Outreach Working Group (IMOR WG)

The IMOR WG facilitates the creation of a web-accessible research resource to include data, methods, workflow documentation, and results collected from the co-clinical investigations.

The mission of the IMOR WG is to facilitate the creation of a web-accessible co-clinical research resource ([Web Resources](#)) that includes the imaging and omics data, acquisition, and processing methods, workflow documentation and meta-data standardization, and results collected from the CIRP investigations. Through IMOR WG participation, Associate Members would gain access to the developed resources to advance their research and ensure reproducible results. Moreover, Associate Members may leverage the CIRP IMOR as an additional platform for disseminating the output of their co-clinical studies. The Associate Members are welcome to contribute to the IMOR WG activities to stay informed of the developed CIRP resources and share their tools."

Recent consensus paper:

- Moore SM, et al. Co-clinical Imaging Metadata Information (CIMI) for Cancer Research to Promote Open Science, Standardization, and Reproducibility in Preclinical Imaging. *Tomography* **2023**, 9, 995-1009. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10204428/>