

Addressing the challenge of Chemotherapy-Induced Peripheral Neuropathy (CIPN)

Many common, effective chemotherapeutic agents are neurotoxic. Necessary dose reduction/cessation potentially impacts survival. Neurotoxic symptoms often result in long-term, life-changing, distressing consequences. Chemotherapy-induced peripheral neuropathy (CIPN) can severely impact function and cause disabling neuropathic pain. Reported baseline risk factors (including genetic and clinical), are inadequate for explaining variability and risk. Whilst there have been some promising preventive therapies identified in preclinical models and early phase clinical trials, there has been a marked failure in translation to the clinic, with limited understanding of neuropathy mechanisms. Currently there are no interventions recommended for prevention of chemotherapy-related neurotoxicity. Existing treatments of established CIPN have a poor evidence-base with limited efficacy and often unacceptable side effects. Better understanding of the current evidence is urgently need to direct future research efforts that will make a real difference to addressing this major challenge. NeuPSIG is therefore launching a new initiative, aiming to bring together the diverse expertise within NeuPSIG to form a CIPN working group (including meaningful patient advocate involvement).

Our aim is to improve the translational pathway to better understand CIPN mechanisms through preclinical models more closely aligned to the clinical syndrome. This should support more effective bi-directional translation and thus development of novel interventions to prevent or effectively treat CIPN.

The first phase of this process is to carry out two linked systematic reviews of the evidence for preclinical models, and the clinical syndrome(s). We will do this through a new NeuPSIG CIPN Working Group, who will use systematic review methodology to develop the review questions, and carry out the systematic reviews (including searching and screening the literature, critical appraisal, data extraction, data synthesis). We would particularly encourage Early Career Researchers, whom we will pair with a more senior/ experienced researcher. We recognize that there is a time commitment required to be part of this work. All contributors will be part of the publication team (as authors, or named collaborators depending on meeting [ICMJE authorship requirements](#)). We will provide training and support in systematic review methodology. Meetings will be via Teams (please note – due to the international nature of the group, these may be out with standard working hours for some people).

We are looking for interested volunteers from preclinical and clinical academic backgrounds to be part of this initiative.

Please email Lesley Colvin (L.a.colvin@dundee.ac.uk) and cc Emma Smith (ESmith006@dundee.ac.uk) to express interest, and state whether you have a preference for the preclinical or clinical Systematic Review.