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**Bio sketch:** Dr. Meloto is a Dental Surgeon trained in Brazil in orofacial pain conditions, with extensive research training in human pain genetics and clinical pain research in the USA and Canada. Her research initially focused on investigating genetic factors related to temporomandibular disorders (TMD). She was responsible for putting together the first Brazilian cohort of over 700 examiner-verified TMD, which was instrumental for several genetic studies on TMD conducted to date. Dr. Meloto’s research is currently focused on establishing platforms for the enrolment of patients with multiple pain conditions with the goal of identifying vulnerability pathways and treatment strategies that will improve pain management.

**Presentation summary:** Dr. Meloto will talk about the creation of a new valuable resource for pain researchers – the Human Pain Genetics Database (HPGDB) – and what we can learn from the global analysis of genetic variants that contribute to pain. She will also discuss her latest findings arising from candidate-gene and genome-wide studies that have identified new loci for painful temporomandibular disorders. Lastly, Dr. Meloto will discuss how genetics may be incorporated into clinical research to help identify subgroups of patients that benefit from specific treatments, and her ongoing projects for the establishment of platforms to facilitate the conduct of clinical studies and data-sharing among pain researchers.