Andrés Pomi is a scientist working at the interface between biophysics and cognitive neuroscience. The general objective of Prof. Pomi's work consists of advancing the theory of associative memories as a representation of the different cognitive phenomena in normal and pathological conditions, and their eventual applications in other areas of knowledge. His research program is in harmony with the concept of teleomechanism, laid out by Hermann Lotze, where cognitive mechanisms are compatible with teleological principles.

Prof. Pomi's work searches for neural representations of the abstract structures that our mind creates and uses. He showed how associative memories can support the semantic graphs with which we link acquired knowledge. He also proposed a biologically feasible representation of how the brain could store discrete group structures from its Cayley graphs.

Another line of Prof. Pomi's research is the exploration of the cognitive processes used in medical diagnosis. From his modelling research, new considerations for clinical practice and medical education have emerged, and a causal mechanism has been proposed following heuristics described by Tversky and Kahneman**.**