HOW DIFFERENT ARE DOMESTIC PIGS FROM WILD BOARS?

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How many genetic changes are needed to turn a wild boar into a domestic pig? The search for identifying such genetic changes that differentiate livestock species from their wild ancestors and an understanding of the evolutionary processes involved have increasingly become one of the major research themes in the fields of animal genetics and breeding. The co-existence of wild and domestic pigs across Eurasia provides a unique opportunity to conduct comparative genetic or genomic analyses for addressing how genetically different is a domestic species from its wild ancestor. During my lecture, I will present the results obtained from a project, which applied high density SNPchips to investigate genome-wide diversity, admixture and footprints of selection in several wild boar population, local and cosmopolitan domestic pig populations (Sus scrofa). Finally, I will describe the identification of the genomic regions (i.e., chromosome segments) responsible for the major differences between wild and domestic pigs.