A topographic map of the Mediterranean region, showing the Italian Peninsula, the Balkans, and the surrounding seas. The map uses color to represent elevation, with green for lower altitudes and brown for higher, mountainous areas. The sea is depicted in shades of blue.

Genomic Adaptation of Mediterranean and Alpine Local Cattle Breeds to the Climate Variables **GALIMED and BOVITA PROJECTS**

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Perspectives

Extension of this approach to
all the Italian cattle breeds

More contrasted climate
subtypes

Mastrangelo et al. *Genet Sel Evol* (2018) 50:35
<https://doi.org/10.1186/s12711-018-0406-x>



Open Access



Conservation status and historical
relatedness of Italian cattle breeds



Fig. 1 Geographic origin of the analyzed local Italian cattle breeds. Northern (green), Northern-central (orange), Podolian-derived (red) and Southern and islands (blue) breeds. For full definition of breeds (see Additional file 2: Table S1)

Detecting footprints
of selection in the
genome of
Mediterranean and
Alpine cattle breeds

1

Objectives

3

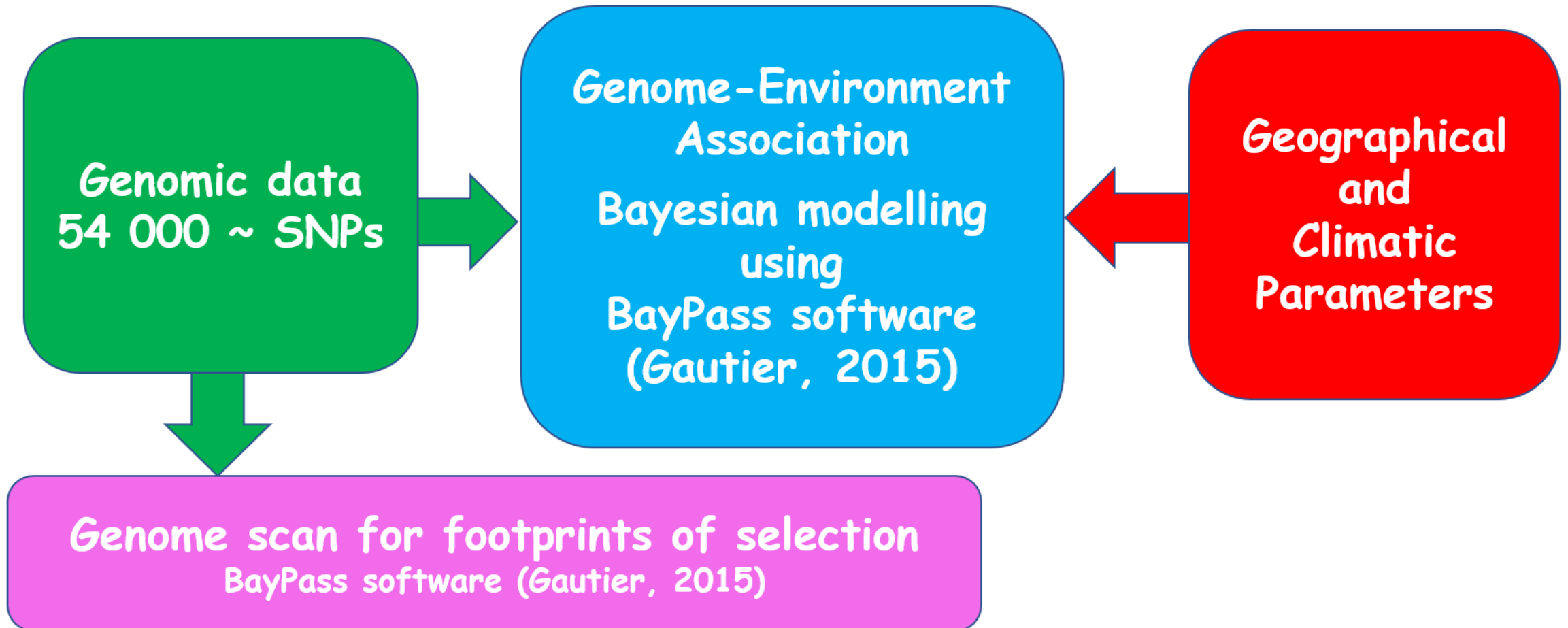
Identifying the
main functions in
which candidate
genes are involved

2

Detecting regions and
candidate genes under
selection associated with
climate

Materials and Methods

Combining SNPs genotypes with climatic and geographic parameters to identify candidate genes for adaptative physiological characteristics



THANKS FOR YOUR ATTENTION

