In this Special Issue on "Applications and Health Benefits of Novel Antioxidant Biomaterials", we invite researchers to write research articles and review articles that report results in the field of antioxidant biomaterials with benefits for human health, considering new biomaterials with antioxidant functions, physical—chemistry characterization, biocompatibility studies, mechanisms involved in the development process, as well as applications in different industrial segments. The articles will be published online in Antioxidants.