

# BIOENGINEERING AND MEDICAL-SURGICAL SCIENCES

## MUR DM 118 - VAR for cultural heritage as a therapeutic opportunity for people with autism spectrum disorder

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<b>Context of the research activity</b>	<p>The aim of this project is to use VAR applied to cultural heritage as a therapeutic opportunity for people with autism spectrum disorder by creating environments of knowing, being and feeling, in order to allow customizable qualifying programs, which for people with autism spectrum disorder have therapeutic value.</p> <p>Progetto finanziato nell'ambito del PNRR - DM 118/2023 - CUP E14D23001570006</p>
<b>Objectives</b>	<p>Working on the integration between medicine and culture and exploiting the potential of VR, the expected results will assume importance in the context of the digital transition at the service of people, as required by Society 5.0 (i.e. a society in which technology is at the service of people), providing new therapeutic and social opportunities to people with frailties and their caregivers. Interaction with virtual environments and works will help people with autism spectrum disorder prepare to face a situation that is normally a source of stress and isolation (therapeutic goal), such as visiting a museum or a site Unesco heritage (objective of social inclusion through culture). Indeed, with this project we will help autistic children and adults to struggle with their phobias: fear of public places, fear of being embarrassed and fear of strangers. The VAR will therefore be used for cognitive behavioural therapeutic purposes, to channel the fears of children, but also of adults, into more positive behaviours, stimulating visualization and imagination. Furthermore, the project will allow a greater understanding of the world by subjects with autism spectrum disorder, preparing them to face a life experience such as visiting a museum inside a building with high historical-documentary value. Finally, the digitized information for these therapeutic activities can be used by the PA to optimize the management and maintenance of the historical heritage in terms of Digital Twin.</p> <p>The research project is inserted in a transversal way on various themes of</p>

the PNRR. In fact, starting from the digitization for culture and heritage tourism of the Public Administration pertaining to the Regional Directorate of Piedmont Museums (Mission 1), the work will be carried out to develop an approach of innovative inclusiveness in the health field using Virtual and Augmented Reality technologies - VAR (Mission 6).

**Skills and competencies for the development of the activity**

Use technologies for VAR