**Doctoral Course** | PHARMACOLOGICAL SCIENCES  
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**Macro-area** | Medical and Biomedical Sciences  
**Department name** | Department of Pharmaceutical and Pharmacological Sciences  
**Webpage** | https://www.dsfarm.unipd.it/ricerca/phd-graduate-programs/phd-degree-program-pharmacological-sciences  

| Research topic A | Pharmacologic and environmental modulation of biological aging  
|---|---  
Biological aging is a complex process not necessarily correlated with chronological age at individual level. Early senescence markers may be reversible and modulated by pharmacological treatment or environmental factors. The senolytic therapies is an emerging research area for the treatment of many diseases, including cancer and atherosclerosis. Here we aim to pharmacologically modulate human senescence markers and to study senescence phenomenon associated to age-related diseases.  

| Research topic B | Development of gerosuppressants and senolytic compounds for the treatment of aging and aging-related disorders  
|---|---  
The population of high-income countries is progressively aging. Aging is associated to cardiovascular diseases, cancer, diabetes, neurodegenerative disorders. The elimination of senescent cells has been proven effective in delaying aging negative effects, but currently available drugs (senolytics) are characterized by a general toxicity. We aim to identity and develop anti-aging nutraceuticals by using both *in vitro* and *in vivo* experimental models.  

**Link to the UNIPhD Call (Academic Year 2022/2023)** | https://www.unipd.it/en/uniphd