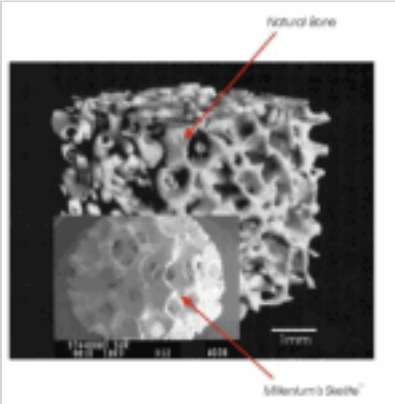
Projet ERISTO

European Research In Space And Terrestrial Osteoporosis
General Overview



ESA project (1997 - 2007)

9 partners (Europe, Canada).

Cofunding : ESA, CNES, ASI, industry, partners

Context: Osteoporosis & Space bone loss

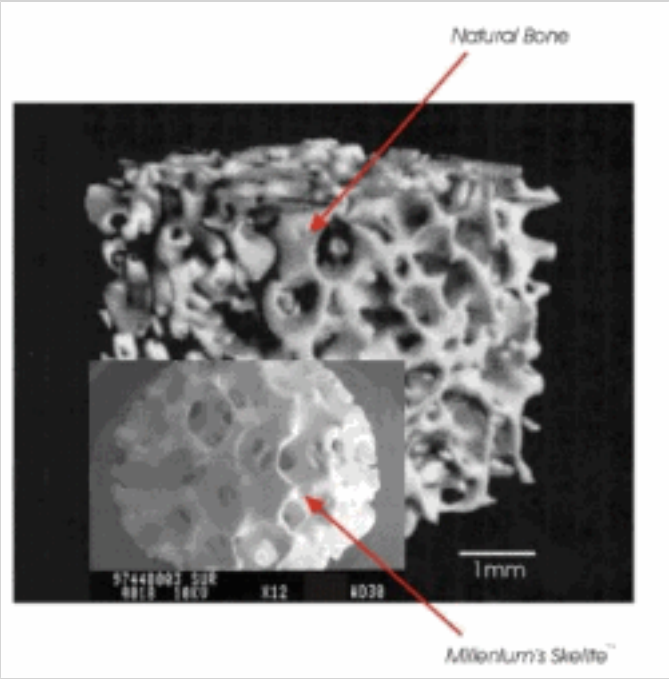
Osteoporosis is a growing public health issue, which represents in the European Union 23 Billion Euros of hospital costs. Besides this public health issue, studies performed on astronauts and on animals after medium to long duration space flights have shown that microgravity entails rapid bone loss and bone structure impairment.

ERISTO is focussed on the effects of mechanical constraints on bone remodeling, a major research field in osteoporosis.

The project benefits from the unique feature of microgravity environment, which enables experiments under "mechanically stress-free" conditions.

The ERISTO team is focussed on the use of microgravity impaired bone remodeling as a new way to reveal ground osteoporosis mechanisms.

Objectifs



ERISTO main goals are to:

* Develop rapid screening methods for bone disease therapies / and space countermeasures
* Study bone-quality issues for the prevention & treatment of bone diseases
* Assess the environmental impact on skeletal development and maintenance

Therefore ERISTO is developing different models:

* In-Vitro models
* In-vivo models
* Innovative methods and analytical tools

Partners

Main results

* 60 publications,
* 1 industrial subsidiary (Switzerland, Millennium AG),
* instruments marketed (vivaCT, XtremeCT Scanco)