

*The President*

Rome, September 12<sup>th</sup> 2011  
Our. Ref. n. 5873/11

Dr. John P. Holdren  
White House Science Adviser  
Director of the White House Office of Science and Technology Policy  
Executive Office of the President  
725 17th Street Room 5228  
Washington, DC 20502

**RE: The James Webb Space Telescope**

Dear Dr. Holdren,

the Italian National Institute for Astrophysics (INAF) is greatly concerned at the proposed cancellation of funding for the James Webb Space Telescope (JWST).

As the successor to the extraordinarily successful Hubble Space Telescope, the JWST will also study the Universe from space. JWST is specially designed to allow breakthrough observations of the first stages of galaxy formation, crucial insight into the complex processes of star and planet formation, and will be a unique asset for characterizing the atmospheric properties of extra-solar planets.

However, it will be also a general-purpose observatory, with broad and even transformative impact in almost every branch of astronomy. Its versatility will allow it to exploit emergent new scientific areas, whether in dark energy, cosmology, stellar, exoplanet or solar system research.

The construction of JWST involves astronomers and space scientists from universities and space agencies including NASA, the Canadian Space Agency and the European Space Agency. Worldwide, many major astronomical projects and facilities, like the ALMA array and the giant telescopes ELTs, are being designed and developed taking into account the synergy with JWST.

JWST very much depends on leadership in science and technology from the United States, without which it will simply not happen. It is set to build on the work of Hubble, is bound to make another series of major discoveries and as a consequence we believe will enjoy similar global public recognition.

Like Hubble, JWST is a project that will inspire young and old people and will foster a dialogue between scientists and the wider public. Exciting projects of this kind are an essential supplement to scientific education in schools and help to recruit young people to further study and to careers in science and engineering, a key goal of governments around the world.

For all these reasons JWST is backed by scientists across the globe and if it is cancelled, its loss would be a serious setback for science as a whole. The INAF therefore strongly supports the effort to secure funding for this important international scientific project.

Yours sincerely,



*Giovanni F. Bignami*