



NAE GRAND CHALLENGES FOR ENGINEERING

NATIONAL ACADEMY OF ENGINEERING



Make Solar
Energy
economical



Engineer the Tools
of Scientific
Discovery



Develop Carbon
Sequestration
Methods



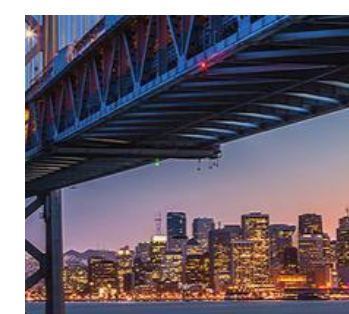
Provide access to
Clean Water



Advance
Personalized
Learning



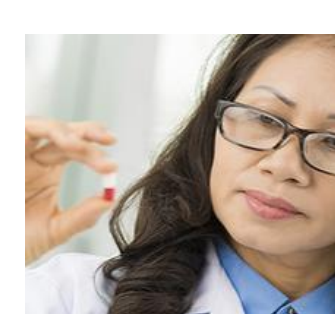
Provide Energy
from Fusion



Restore and
Improve Urban
Infrastructure



Secure
Cyberspace



Engineer Better
Medicines

3 December 2018

Sapienza University – Grand Challenges Scholars Program

**Sala del Consiglio della Presidenza
Via Eudossiana 18, 00184, Roma**

- **17.00** - Open Lecture Presentation of the Grand Challenge Scholars Program and Proposals of National and International Activities addressed to Students, PhD students.
Prof. Theodore Endreny, US National Academy of Sciences Ambassador
- **17.30** - The Grand Challenge Scholars Program at Sapienza University, the activities, the researches and the involved Scholars
Prof. Andrea Micangeli, GCSP Italian Focal Point
- **18.30** - Meeting with Teachers Interested in the Grand Scholars Challenges: Short discussion on the proposals of the GCSP - US National with:
Prof. Antonio D'Andrea, Engineering Faculty Dean

What is the NAE-GCSP:

Launched by the National Academy in Washington in 2008, the Grand Challenges Scholars Program intends to increase the sensitivity for projects of concrete social and economic impact among students and researchers. They are rewarded with a "recognition" called the GCSP Award, the proposals for innovation, which act as a "bridge" between different countries and cultures, especially through five competences:

- 1. Design Competence:** design experience on a topic close to a major problem of the 21st century;
- 2. Multidisciplinary Competence:** understanding of the multidisciplinary of the solutions of engineering systems developed through the student's personal commitment;
- 3. Economic Competence:** direct experience of the need for a feasible business model;
- 4. Multicultural Competence:** to be acquired preferably through direct experience, to guarantee the mutual cultural acceptance of the proposed engineering solutions;
- 5. Competence of Social Awareness:** reflection on the appropriateness that engineering solutions mainly benefit people and society.

(*) To participate, please register with NAE-GCSP Focal Point for Italy: andrea.micangeli@uniroma1.it