The underlying philosophy of the Explorers Program ...

- Has not changed since the beginning of the PI-led Explorers Program in the early 1990s:
  - Compelling science
  - PI-led teams
  - PI-managed cost commitment

- Is consistently considered scientifically productive; quotes from the 2010 Decadal Survey:

  Explorers have delivered a scientific return on investment at the highest level over the past two decades.

  ... a program that delivers a high level of scientific return on relatively moderate investment and that provides the capability to respond rapidly to new scientific and technical breakthroughs.

  The promise of future Explorer missions is as great as ever.
What are the most important aspects of Explorer Missions to the Astrophysics Division?

- Compelling science
- Technical success with acceptable risk
- Cost performance within PI cost commitment
  - At downselect (KDP-B)
  - At confirmation (KDP-C)
  - HQ-held UFE is not available to solve your problems

During the Concept Study:
- Define team roles and coordination between PI, PM and others.
- “NASA recognizes and supports the benefits of having diverse and inclusive scientific, engineering, and technology communities, and fully expects that such values will be reflected in the composition of mission and instrument teams.” (see Concept Study Guidelines)
Astrophysics MIDEX/MO Missions in Formulation
Selected August 2017

Arcus: PI Smith/SAO
High-resolution X-ray spectroscopy

CASE: PI Swain/JPL
Detectors for ESA’s ARIEL

FINESE: PI Swain/JPL
NIR transit spectroscopy of exoplanets

COSI-X: PI Boggs/UCB
ULDB gamma-ray balloon: synthesis of elements

SPHEREx: PI Bock/Caltech
NIR spectral survey of entire sky

ISS-TAO: PI Camp/GSFC
All-sky X-ray survey for transients, GW sources

Detectors for ESA’s ARIEL