LEARN was one of two research funds established in 2012 under the NASA Aeronautics Research Institute (NARI).

- The funds were created to provide researchers opportunities to establish credibility for their innovative aviation technology concepts.
  - Seedling fund was only open to proposals from NASA civil servant Principal Investigators (PI).
  - The LEARN fund was open to PI led proposals from all members of the US aeronautics community – except NASA civil servants.
  - Both funds’ objective is to give high potential novel aviation concepts a chance to establish if further investment by NASA or industry is warranted.

- In 2013 the emphasis of LEARN and Seedling was changed from individual PI led proposals to teams with diverse research discipline members.
  - Award value increased and number of awards decreased.
  - As part of the FY2015 ARMD restructuring Seedling was integrated into the new Convergent Aeronautics Solutions (CAS) project, and LEARN became a project, both under the Transformative Aeronautics Concepts (TAC) Program.
LEARN First Round

• Sixteen Individual Principle Investigator (PI)-led proposals received Phase I collaborative agreement awards for a 12-month period of performance
• At the conclusion of Phase I, five innovative research concepts were selected for an 18-month Phase II effort
• The research accomplishments being presented in this seminar represents the culmination of two and a half years of work in pursuit of four of these concepts
  – This marks the completion of the first full LEARN Phase I & II cycle

• Additional LEARN Research collaborations
  – Second round LEARN Phase I has been completed
  – Second round LEARN Phase II teams selected
  – Third round LEARN Phase I is underway
  – LEARN UAS autonomy testbed design teams selected
LEARN Phase II Technical Seminar

- 8:30 a.m. to 8:45 a.m.
  Michael Dudley – *Introduction*

- 8:45 a.m. to 9:45 a.m.
  Yu Gu – *Cooperative Gust Sensing and Suppression for Aircraft Formation Flight*
  West Virginia University Research Corporation

- 09:45 a.m. to 10:15 a.m. Break

- 10:15 a.m. to 11:15 a.m.
  Jose Palacios – *Centrifugally Powered Pneumatic De-Icing for Helicopter Rotor Blades*
  Pennsylvania State University

- 11:15 a.m. to 12:15 p.m.
  Wookyung Kim – *Plasma-Assisted Combustor Dynamics Control*
  United Technologies Corporation

- 12:15 a.m. to 12:45 p.m. Break

- 12:45 p.m. to 1:45 p.m.
  Michael Kerho – *Turboelectric Distributed Propulsion Test Bed Aircraft*
  Rolling Hills Research Corporation