



# Consortium for Verification Technology *LANL Overview*

Dr. Karen Miller

CVT Workshop  
15-16 October 2015

# LANL & Verification Technologies

- **Research, development, training & deployment**
  - Safeguards science & technology
  - Nuclear test monitoring
  - Warhead verification & dismantlement
- **Key resources & capabilities**
  - Radiation detection
  - Advanced nuclear experiments
  - Radiochemical analysis
  - Modeling & simulation
  - Remote sensing
  - Safeguards training laboratory
  - User facilities such as LANSCE
  - Nevada National Security Site

**LANL has ~900  
students and  
~400 postdocs**

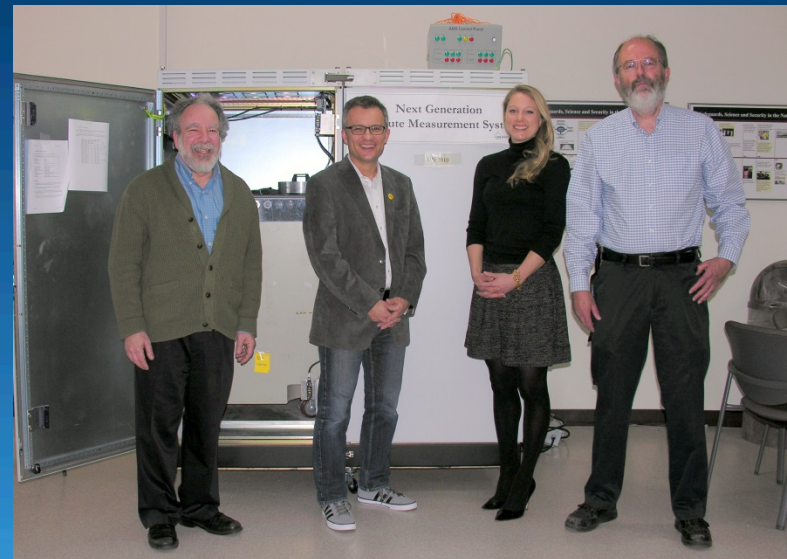
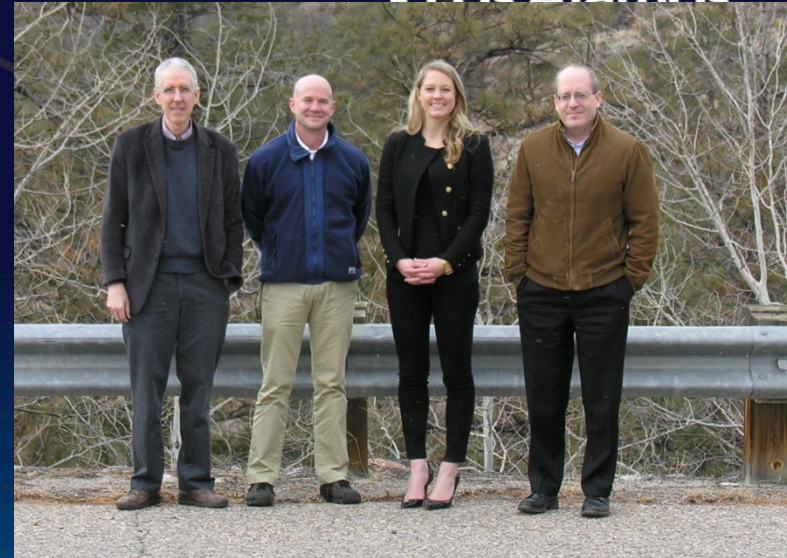
# LANL Visits

## ■ Visiting Professors

- January 2015 – Al Hero, Larry Carin & John Fisher
- February 2015 – Clair Sullivan
- March 2015 – Rob Goldston & Alex Glaser

## ■ Student Internships

- Elizabeth Hou (UM)
  - Anomaly detection methods for multivariate time series data*
- Mark Kamuda (UIUC)
  - Modern gamma-ray spectroscopy studies*



# Device Assembly Facility (DAF) Measurements

- Nine CVT university personnel participated in the July 2015 measurement campaign
- Four detector systems used to measure 12 configurations of DAF items including the BeRP Ball (4.5 kg  $\alpha$ -phase Pu) and Rocky Flats Shells (~13 kg HEU)

