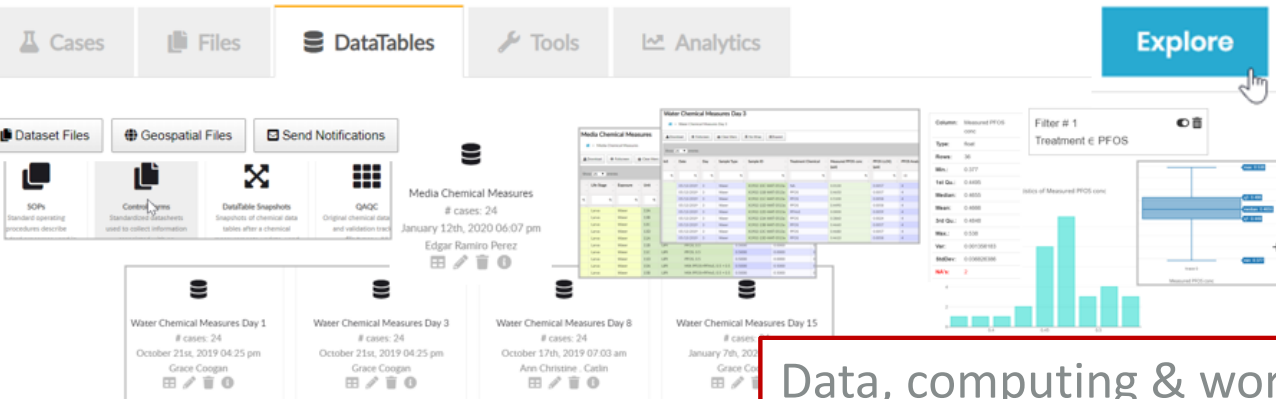# CIF21 DIBBs: Creating a Digital Environment for Enabling Data-Driven Science

PI: AC Catlin Co-PIs: A. Alam, M Sepúlveda, J. Francisco, K. Gallant
Institutions: Purdue University, University of Pennsylvania, University of Minnesota
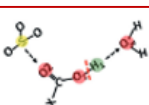
Award #: 1724728

Multi-dimensional data models
Powerful data table services
Instrument data transformation
Plug-in validation, data completeness
Statistical tools
Workflow tracking
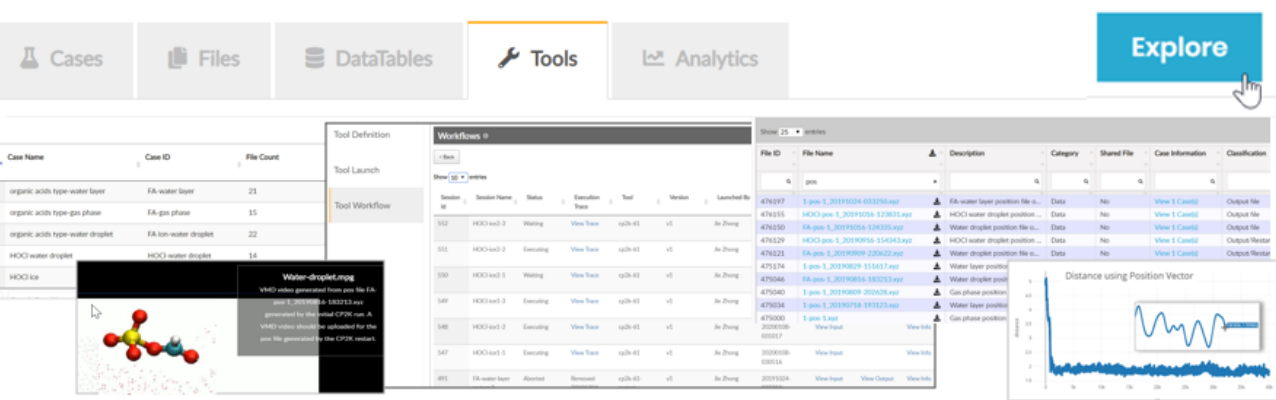Interactive R-based analytics
FAIR-compliant

DEEDS

Collection
Organization
Preservation
Metadata standards
Computing Tools
Analytics
Sharing
HPC Facilities
Workflows
Provenance
Results Traceability
Reproducibility
Exploration
Visualization
Search & Linkage
Dissemination
Publication & Reuse
FAIR compliance

Data, computing & workflows **come together** in datasets that research teams build, use and share **across the entire investigation**. DEEDS is effective across science domains!

File classification by type & use
Upload validation & tracking
Repository visualization
Tool definition & import
Tool launch & data transport
Licensed & open source packages
Research codes & models
Workflow capture & control