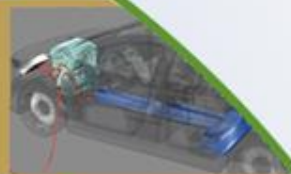
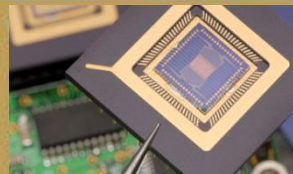


# Nanomaterial Registry

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## Nanomaterial Registry

- Establish an authoritative web-based nanomaterial registry
  - Curated information on the biological and environmental interactions of well-characterized nanomaterials
  - Interoperable with existing resources
  - Web-based portal that enables efficient data searching, querying, and reporting
- Additional Impact
  - Facilitates data validation and data quality improvement
  - Enhances the development of new models, assays, standards, and manufacturing methods
  - Accelerates the translation of new nanomaterials for biomedical and environmental applications
  - Promotes standards and identifies reliable information that can be used in regulatory decision-making

## The Approach

- A highly collaborative and participatory, multi-stakeholder approach that effectively leverages existing and ongoing collaborations, databases, ontologies, and other resources
  - Consensus-building and decision-making from diverse nanotechnology stakeholders
- The Registry seeks to
  - Identify a set of minimal information about nanomaterials (MIAN)
  - Develop an ontology and matching systems
  - Address interoperability with existing and future data sets
  - Facilitate collaborations across the nanomaterials research community
- Target Outcomes:
  - A user-friendly, web-based registry that houses curated data from a variety of validated sources and that is useful and accessible for diverse stakeholders
  - Community outreach and communications to attain broad acceptance in the nanomaterials community

## Leveraging Existing Resources

- **Biomedical and Nanomaterial Ontology:**
  - National Center for Biomedical Ontology (NCBO) BioPortal
  - The Open Biomedical Ontologies (OBO)
  - Nanoparticle Ontology (NPO)
- **Minimal Information:**
  - Minimum Information for Biological and Biomedical Investigations (MIBBI) Portal
  - Minimal Information for Nanomaterial Characterization (MINChar) Initiative
- **Nanomaterial Related Resources:**
  - The Cancer Nanotechnology Laboratory portal (caNanoLab)
  - NIOSH Nanoparticle Information Library (NIL)
  - University of Oregon Toxicology index database
  - National Gene Vector Laboratory's (NGVL) Pharm/Tox Database
  - National Nanomanufacturing Network's InterNano manufacture process database
  - NanoHub
  - NanoTAB
- **Organizations:**
  - caBIG Nanotechnology WG
  - InterNano
  - ISO/ASTM

The RTI team recognizes that there are additional resources that can and will be leveraged

# Thank You

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