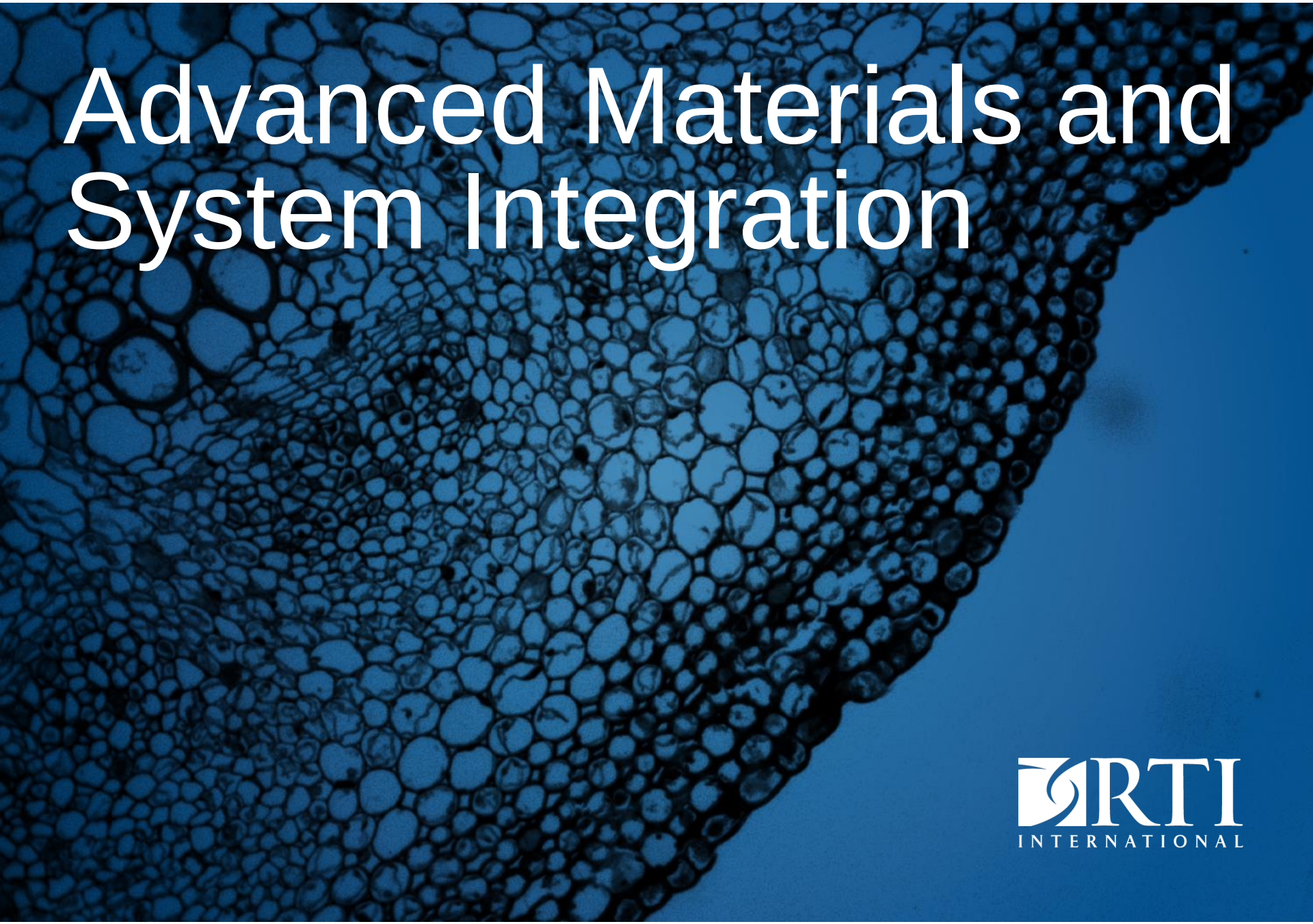
Advanced Materials and System Integration



RTI INTERNATIONAL

Origins

Founded in 1958 as the first, anchor tenant in Research Triangle Park, RTI is one of the most transformational public-private economic development projects in national history.

RTI Today

A non-profit research institute, RTI lends an objective, disciplined, integrated solution to complex global challenges for both private and public sector clients.

RTI Projects

RTI has projects under way in more than 75 countries. 1,800+ ongoing engagements range from small-scale research projects to $100M+ survey programs and international development.

Capabilities

RTI brings together the "best of" industry, academia, and contract research.

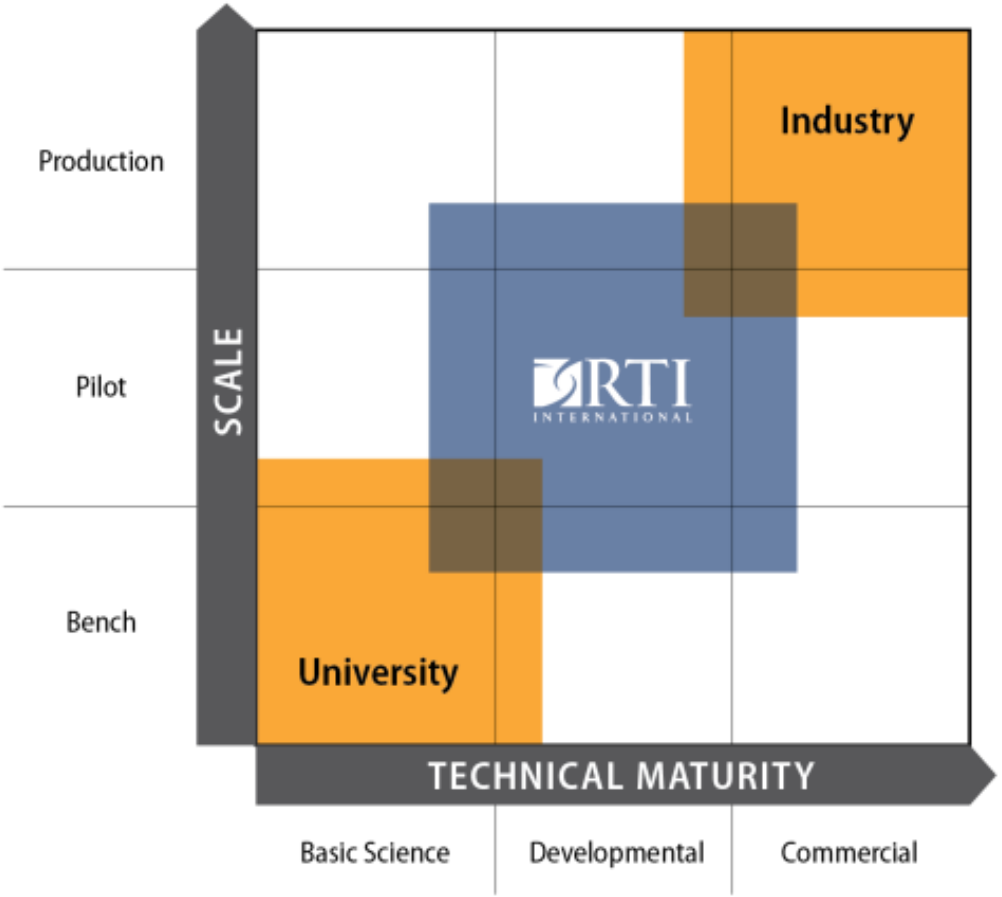
- Discovery sciences & development
- Advanced technology & engineering
- Surveys & statistics
- International development
- Education & training
- Economic & social policy
- Innovation advising

RTI INTERNATIONAL

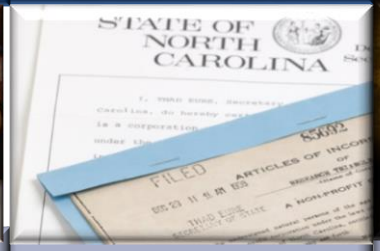
Translational Research

Our Mission:

Move high-impact technologies from the bench toward commercial practice



Perspectives on RTI

One of the world's leading research institutes	An applied research organization	An institute, not a university	A non-profit organization	Well connected, with a diverse client base
				
▪ At the cutting edge of important technical problems and solutions ▪ Unique ability to create high-performing teams to solve complex problems	▪ Focus is on "turning knowledge into practice" ▪ Completely dependant upon competitively awarded contracts	▪ 100% professional, dedicated staff ▪ Experienced project managers, many from industry	▪ Very conducive to true "win-win" scenarios ▪ Independent, objective work ▪ A pragmatic, flexible approach to IP	▪ Extensive network of relationships with industrial, academic, and government clients and partners. ▪ Access to mission oriented federal programs

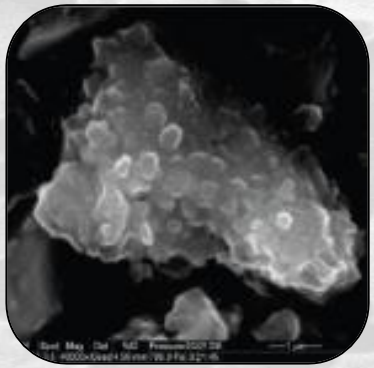
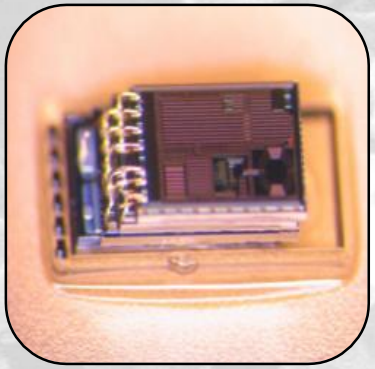
Clients

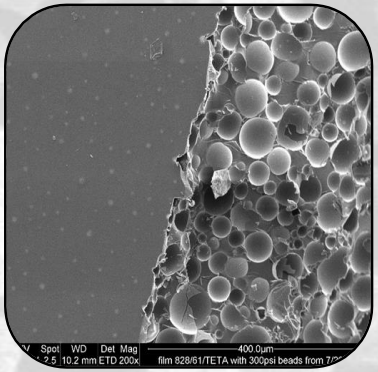
Our clients span federal, university, and corporate sectors.

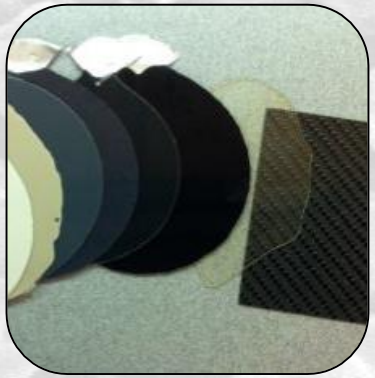
RTI INTERNATIONAL


Technology &
Innovation
Platforms

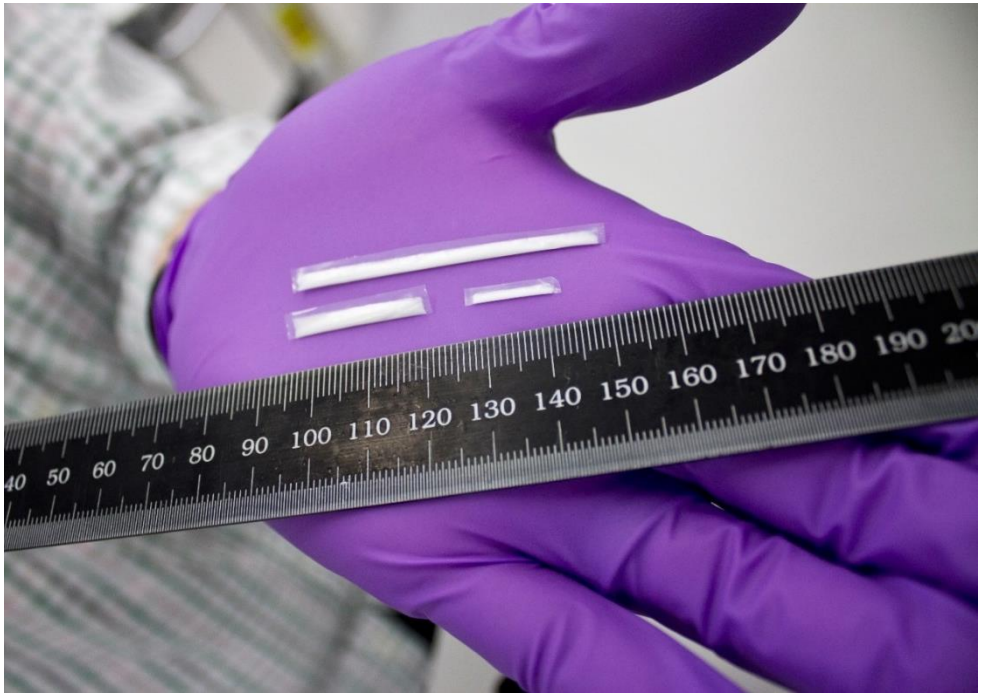
Technology Platforms include advanced materials synthesis, formulation, and application-specific testing to meet client needs



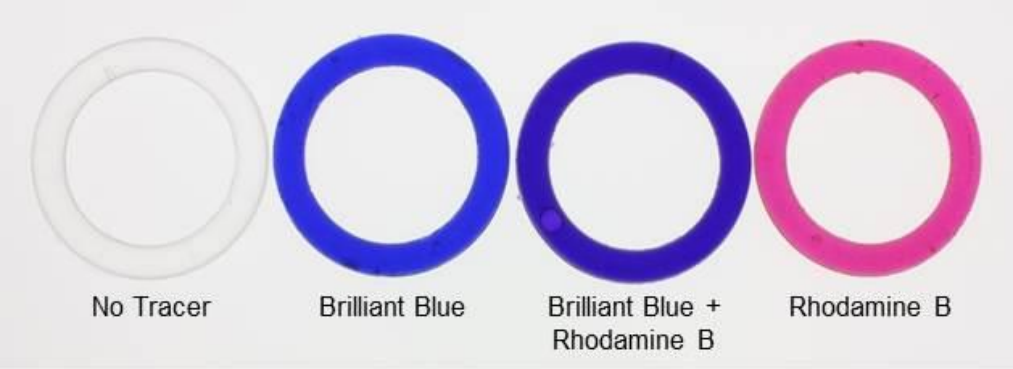

Advanced Materials Platform

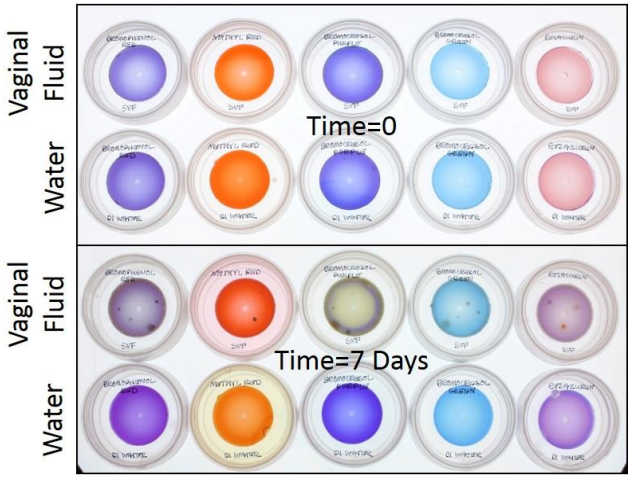


Prototype Thin Film Polymer Devices

Controlled release of ARV for HIV PrEP

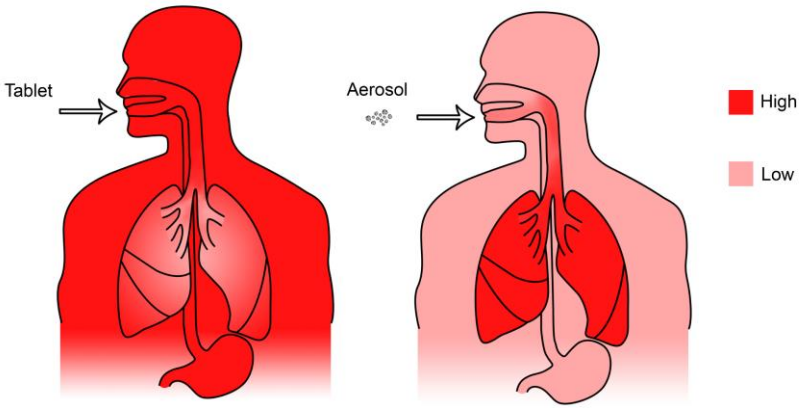
- User-independent
- Provider administered
- Discretion of use
- Subcutaneously injected
  - Appropriate for women and men
  - Protection from all sexual routes of exposure
- Biodegradable
- Removable

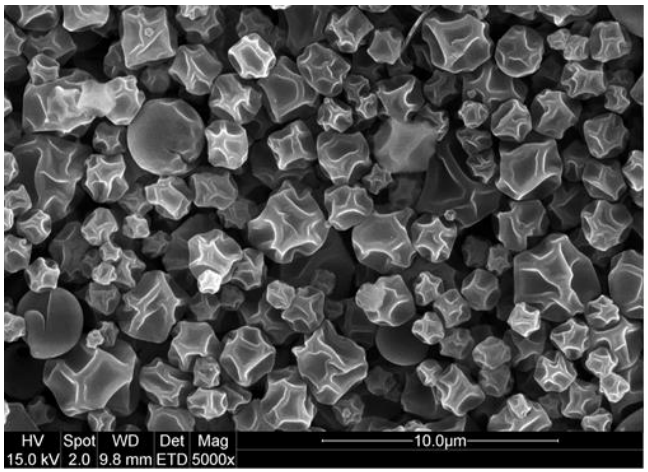




Development of a simple, affordable, real-time test for assessing vaginal ring use

- Cross disciplinary team with experts in biomaterials, translational product development, social/behavioral research, technology adoption, and assessment of the acceptability of and adherence to HIV prevention methods



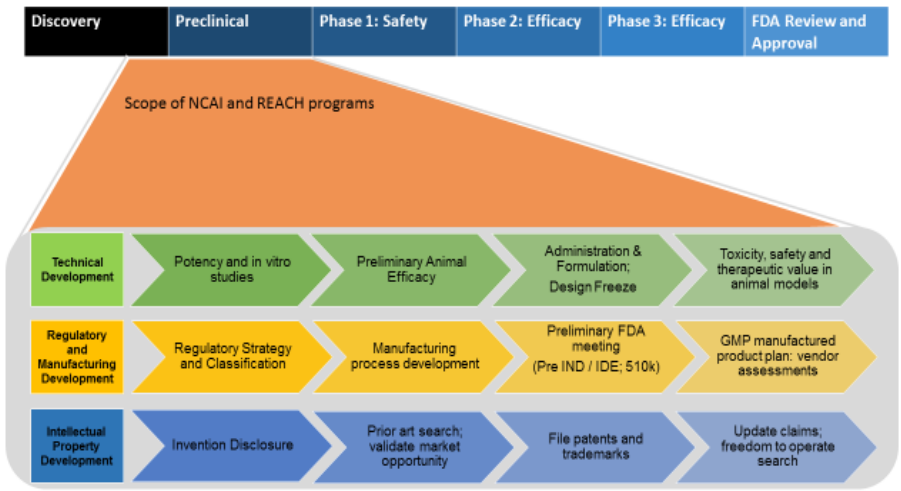


Low density particles afford good disaggregation and lung deposition

Inhaled Formulations for Tuberculosis

- Platform for proprietary and reformulated compounds
- Dry powder, aerosol and liquid formulations
- Reduced or eliminated cold chain storage
- Decreased drug load (gram quantities to milligrams)
- High localized concentration means greater efficacy
- Attractive for MDR patients (replaces daily injection)

Evaluation Plan for the NIH Centers for Accelerated Innovations (NCAI) and NIH Research Evaluation and Commercialization Hub (REACH) program



Assessment of improvements in:

- Time to common commercialization milestones,
- Likelihood of progressing beyond individual milestones,
- Lnnovator commercialization knowledge