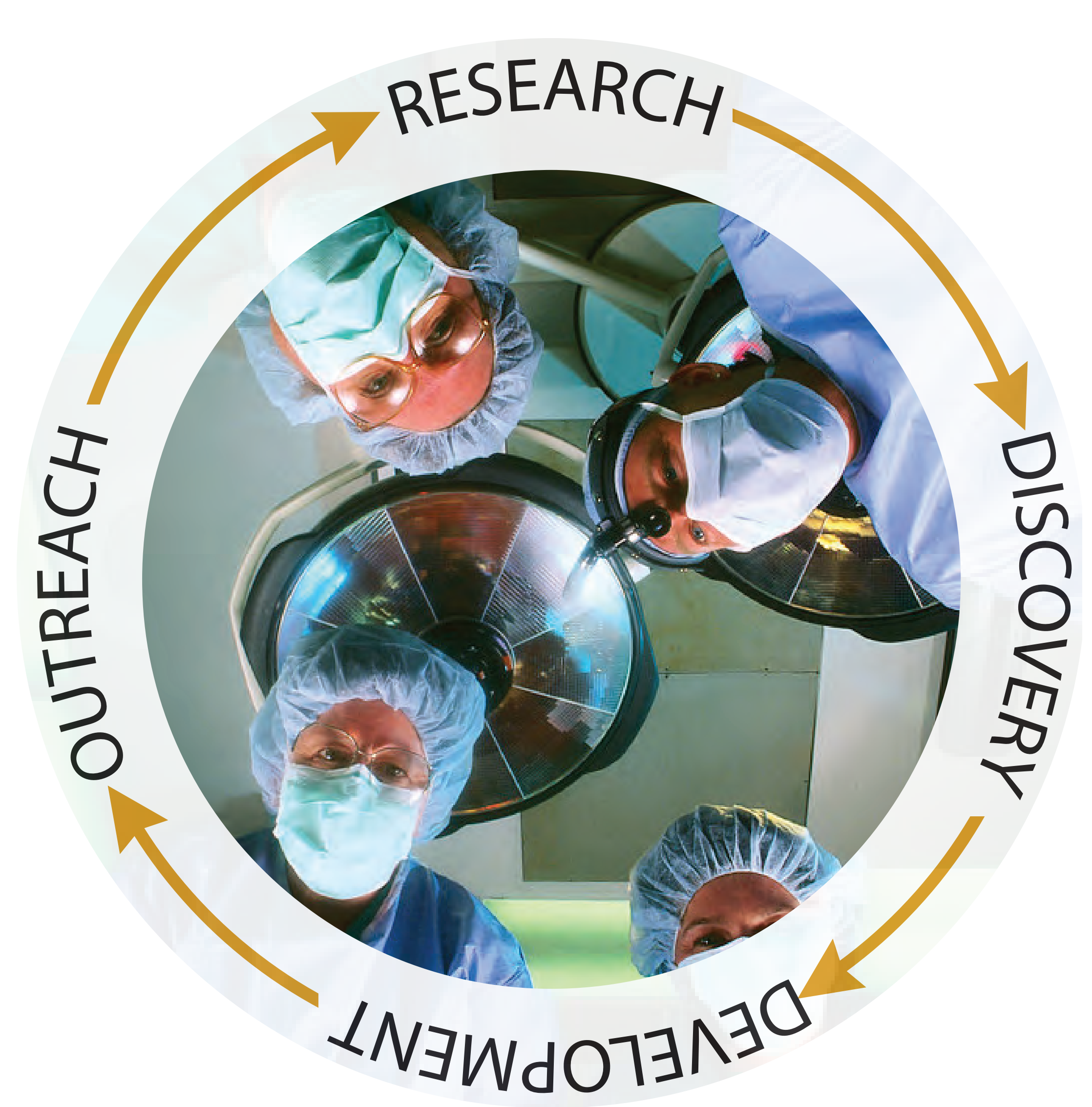


HEALTH PROTECTIVE TEXTILES BRIDGING THE DISPOSABLE/REUSABLE DIVIDE

A NSF Materials Use: Science, Engineering, and Society Study
<http://nsf-muses.ucdavis.edu>



Biocidal Medical Textile Requirements

- Provide protection against pathogens: Fluid repellent and antimicrobial, reduce the level of infection rate in hospitals, health effects,
- Comfortable to wear,
- Environmentally friendly, non-toxic, materials that minimize use of raw materials, and lower waste disposal costs.

Health Care Environment Analysis

- Evaluate the extent and effectiveness of biocidal material use in hospitals,
- Determine the relationship between infection rate in hospitals and usage of biocidal materials.

Data Collection and Analysis

- Survey and interview health care managers, infection control professionals, health care decision makers and industry stakeholders,
- Exploratory research on multifunctional fabrics,
- Compare government regulations, international standards, political and economic standards.

Textile and Process Development

- Develop reusable biocidal fibers/fabrics for hospital linens and uniforms,
- Develop environmentally benign fibers for both nonwoven and woven fabrics, laundering, and waste-disposal methods.

Outreach

- Academic and industry publications,
- Incorporate research into education programs
- Interface with related worldwide associations,
- Organize an international workshop/conference,
- Technology transfer to industry.

The spread of infectious diseases within the health care system is significant due to the 675 thousand tons of infectious medical waste generated by U.S. hospitals each year.

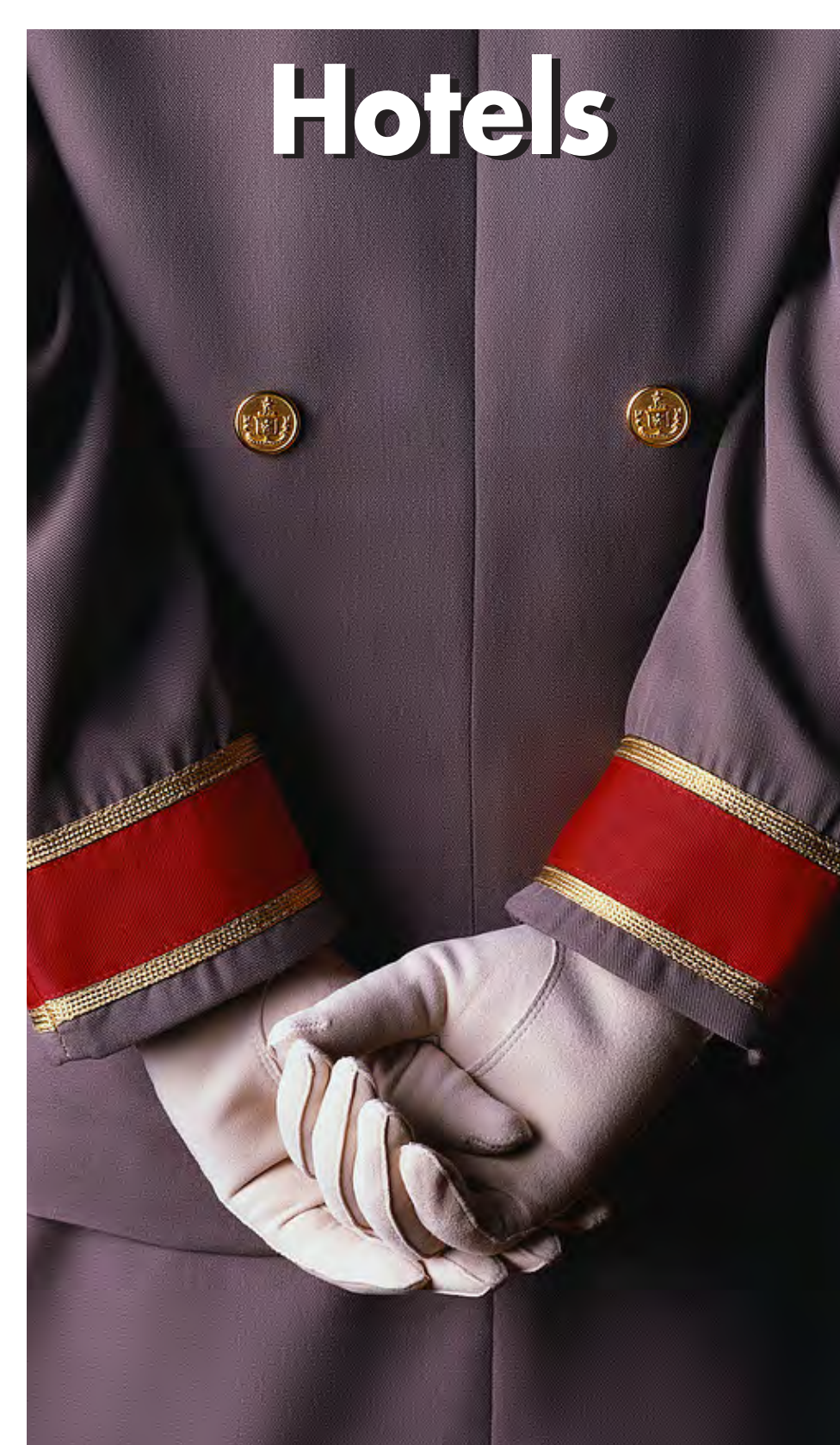
FUTURE APPLICATIONS



First response



Military



Hotels



Mail



Research

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