CENTER FOR CANCER RESEARCH

Connecting the Cancer Community

An Engineered Selenocysteine Defines a New Class of Pharmaceuticals

TECH Council MD

Maryland TEDCO Technology Development Corporation

TEDCO/NIH/NCI Technology Showcase

Christoph Rader, Ph.D.

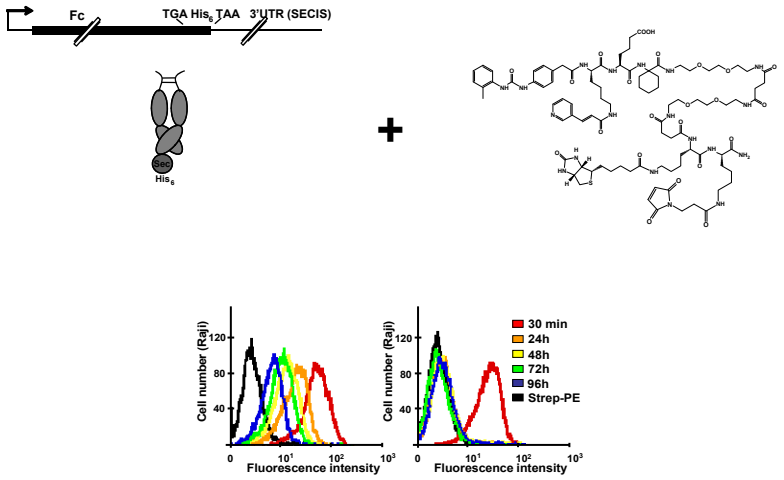
September 25, 2007

National Institutes of Health — National Cancer Institute

Technology

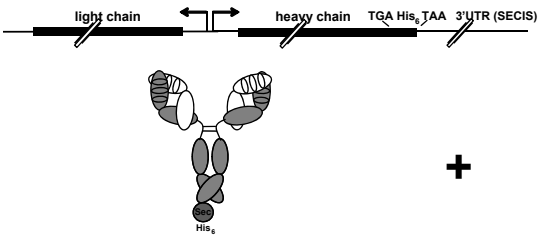
CENTER FOR CANCER RESEARCH

Highly defined Fc conjugates

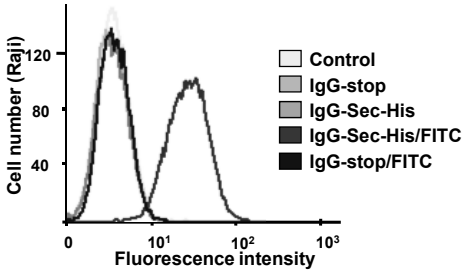


Technology

Highly defined IgG conjugates



+ FITC-maleimide



Technology Applications

Small synthetic molecules are endowed with

- **► extended in vivo half-life**
- **► Fc receptor binding capability**
- **► increased solubility**
- **► increased capability to interfere with protein/protein interactions**
- **► aerosol delivery**

Monoclonal antibodies are endowed with

- **► improved activity through uniquely defined conjugation to drugs, radioisotopes, or imaging reagents**

U.S. Provisional Patent Application 60/909,665 filed April 2, 2007

Commercial Applications

- **Improve the pharmacokinetics and activity of small synthetic molecules**
- **Improve the activity of monoclonal antibodies**

Therapy and diagnosis of cancer, inflammatory diseases, infectious diseases, and metabolic diseases

Collaboration Opportunities

- **Apply the technology to proprietary small synthetic molecules**
- **Apply the technology to proprietary monoclonal antibodies**
- **Apply the technology to other molecules of therapeutic or diagnostic interest**
- **Investigate large scale manufacturing capability**

Contact Information

Christoph Rader, Ph.D.
National Cancer Institute, National Institutes of Health
Building 10 CRC/Room 3-3150
9000 Rockville Pike
Bethesda, MD 20892-1203

(301) 451-2235

raderc@mail.nih.gov