

## Defining Sponsored Research

**Basic (aka *fundamental* or *pure*) research** is driven by a scientist's *curiosity* or interest in a scientific question. The main motivation is to *expand man's knowledge*, not to create or invent something. There is no obvious commercial value to the discoveries that result from basic research. **NSF defines Basic Research** as *systematic study to gain knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.*

For example, basic science investigations probe for answers to questions such as:

- How did the universe begin?
- What are protons, neutrons, and electrons composed of?
- How do slime molds reproduce?
- What is the specific genetic code of the fruit fly?
- Examples of Basic (fundamental) Research awards are grants (NSF, NIH, NASA, ARO, etc.) and cooperative agreements

**Applied research** is designed to solve *practical problems* of the modern world, rather than to acquire knowledge for knowledge's sake. One might say that the goal of the applied scientist is to *improve the human condition*. **NSF defines Applied Research** as *systematic study to gain knowledge or understanding necessary for determining the means by which a recognized and specific need may be met.*

For example, applied researchers may investigate ways to:

- improve agricultural crop production
- treat or cure a specific disease
- improve the energy efficiency of homes, offices, or modes of transportation
- Examples of Applied Research awards are Phase I/Phase II SBIR/STTR, commercial contracts and some state contracts/grants.

**Development research** is systematic use of the knowledge and understanding gained from research for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes. Examples of Development Research are contract specific and will be defined in the SOW to include awards issued under the Delivery Orders such as D0010, R136, etc.

**Instruction and Training** is defined as teaching and training activities. Sponsored instruction includes agreements which support curriculum development as well as all types of teaching/training activities, whether offered for credit toward a degree or certificate, on a non-credit basis, or through regular academic departments or by separate divisions, summer school, or external division.

For example, instruction and training includes:

- Any project for which the purpose is to instruct any student at any location
- Curriculum development projects at any level, including projects which involve evaluation of curriculum or teaching methods. **Note that such evaluation may be**

