

including the NIAID-supported International Collaborations in Infectious Disease Research (ICIDR) program, have been more successful in establishing effective research groups overseas. The ICIDR program incorporated domestic U.S. research groups directly in support of overseas centers. This is considered a major reason for the success of the ICIDR program. Furthermore, a number of American universities have established stable academic interactions with centers outside of the United States. The value of developing consolidated international ventures at selected sites was recognized and strongly endorsed by the panel. The panel also recommended that centers currently supported by NIAID be expanded where possible and that collaborations between components of NIAID be encouraged where such arrangements are congruent. For example, sexually transmitted disease vaccine research efforts are compatible with HIV vaccine research activities.

How can we maximize interactions with industry and other groups in the private sector to accelerate the development of new vaccines? NIAID uses a variety of approaches to stimulate and support Institute-industry collaborations. **These include the following:**

- Use of negotiated Cooperative Research and Development Agreements (CRADAs);
- Provision of direct support to projects via grants or contracts;
- Provision of access to Vaccine and Treatment Evaluation Units (VTEUS) and other testing facilities;
- Support of clinical trials of vaccines; and
- Provision of regulatory support (particularly important for smaller firms).

All of these approaches are currently being used successfully. For example, CRADAs have already been established for the development of influenza and pertussis vaccines. The VTEUS have a long and distinguished history of clinically evaluating candidate vaccines. They are uniquely suited and positioned to conduct comparative trials as was done with the acellular pertussis vaccine candidates.

The panel endorsed and encouraged NIAID to strengthen further these interactions. The panel suggested additional activities, such as brokering relations between companies and exploring collaborations in such areas as joint government-industry support of a vaccine production facility. The success of the Children's Vaccine Initiative will depend in great measure on the ability to work effectively with colleagues in industry.