Interactive AudioVisual Learning (IAVL), by combining the power of an audiovisual device to add the dimensions of sight and sound with the capability of a computer to interact with a learner, can effectively teach areas that might be difficult without the direct intervention of a human instructor. This workshop is designed to bring together teachers with experience using IAVL so that others can explore this area without having to rediscover solutions to common problems. The major topics that will be covered include the educational opportunities afforded by IAVL that go beyond simple computer-assisted instruction, the added complexities that must be considered in the instructional design of IAVL lessons, and the potential to use natural language to interact with the computer. Without financial support for the research and development of lessons in IAVL format, progress will be slow, so the workshop will address the issue of funding through the government and the private sector.

Interactive AudioVisual Learning (IAVL) has the potential to become a major educational tool for the health sciences. IAVL is especially suited to teaching the health sciences because learners are adult and the subject matter is often visually oriented. The combination of an audiovisual device and computer allows material to be presented in a visual format while the amount of material and the pace are tailored to the needs of the individual learner.

This workshop is designed to be a forum for educators who plan to develop lessons for health related areas in IAVL format. The educational opportunities will be discussed by Barrie Jo Price and George Marsh (University of Arkansas). Areas that previously required human instructors can now be addressed by IAVL. Lessons can be designed so students can proceed through them on a "need to know" basis individualized for the particular situation and learner. Drs. Price and Marsh have been able to show that IAVL is an effective learning technique and can be more efficient than traditional approaches.

Because IAVL integrates audiovisual techniques with computer based instruction, the format has the problems associated with both teaching methods. No well designed studies have been published that describe the best approach to the integration of audiovisual segments with the interactive capabilities of the computer. However, we can learn from those working in the field, and Hilliard Jason (National Center for Faculty Development, Miami) will share his experiences as they relate to the instructional design of IAVL lessons for health science professionals.

One of the constraints of computer based instruction implemented on a small system has been the need to limit responses to questions to multiple choice type answers or simple phrases. This limitation has an adverse effect on instructional design. However, natural language responses can now be successfully implemented on microcomputers using machine language subroutines or some of the newer authoring languages. Abdulla Abdulla (University of Georgia) has developed a program that recognizes over 200 words and quickly responds to a learner's input. He will discuss his use of natural language within IAVL lessons.

Recently, James Woods (National Library of Medicine) has been evaluating a lesson developed in IAVL format using a pathology videodisc produced by Robin Jones. Dr. Woods will discuss this project and other activities involving IAVL at the Lister Hill Center for Biomedical Communication.

It is clear to those who have worked with IAVL that the number of hours to prepare a lesson may be many times that required to prepare a lecture on the same subject. Single individuals or institutions are limited in the number of quality lessons that they can produce each year, especially without significant outside funding. The major problem for producers of IAVL lessons is that there are no standards for format or equipment. Until a reasonable number of quality lessons are produced, IAVL will remain a little used technique. In order to hasten the time until a library of lessons is available, Steven Reich will discuss the formation of an IAVL consortium that would share the basic elements (content, instructional design, and visual material) of IAVL lessons. Presentation of lessons in multiple formats can then occur so wide distribution is possible.

The major purpose of this workshop is to bring together individuals who are working with IAVL in the health sciences to share information and develop a strategy that will place IAVL firmly into the educational structure of the health sciences.