

# Enabling Distributed Collaborative Science

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Collaboration across distances is a strategic component of scientific research. However, it is difficult for natural scientists to collaborate when they work in different locations, especially when they need to use specialized scientific instruments. To enable collaboration over distance, we have designed, developed, and are evaluating a collaborative environment to support research that uses a specialized scientific instrument called a nanoManipulator [1]. The nanoManipulator incorporates visualization and force feed-

back technologies to allow scientists to see, feel, and modify biological samples being studied with an Atomic Force Microscope. To inform the design of the collaborative environment, we conducted an ethnographic study to develop an understanding of scientists' current collaborative work practices and their expectations of collaborative technology.

1. Taylor, II, R.M. & Superfine, R. (1999). Advanced interfaces to scanning probe microscopes. In: H.S. Nalwa (Ed.) Handbook of Nanostructured Materials and Nanotechnology. New York: Academic Press.

