

**Track 1 Research Team: Takeshi Moro (Art & Art History) and Korin Wheeler (Chemistry & Biochemistry)**

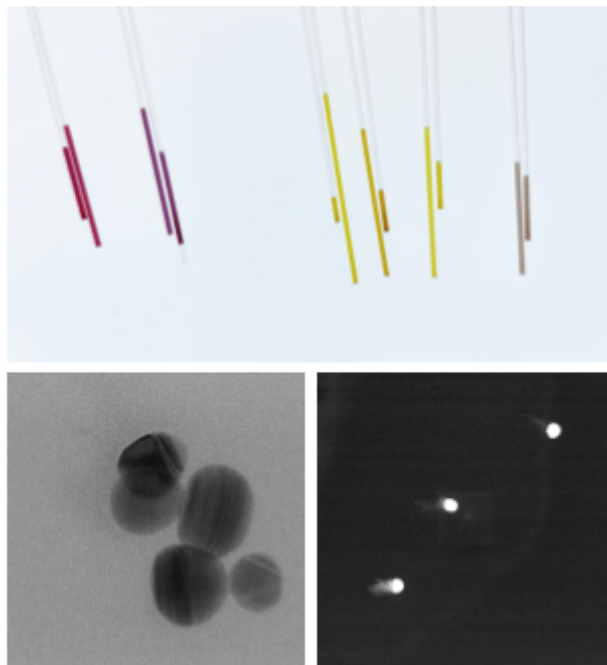
**Project Title: Visualizing the Unseeable**

Nanomaterials, smaller than the wavelength of light, are impossible to see with the naked eye or even a light microscope. This collaborative project between chemistry and art seeks to visualize nanomaterials and explore their unique features that are invisible to the naked eye.

Taking inspiration from collectives and artist groups that have emerged as powerful mainstream fine arts practitioners, we are forming **Nano-ha**, an artist collective. Members will include PIs, Moro and Wheeler, as well as students with backgrounds in chemistry, arts, and both. The collective members will work together as a unit to create artworks and explore scientific discoveries. We seek to privilege the process of production and emphasize less on authorship and ownership. The hope is that these values will encourage deep collaboration that is truly cross-disciplinary and cross-generational.

We anticipate screen-based artworks and works on paper. Works will include electron microscopy images of nanoparticles synthesized in the Wheeler lab, as well as art created with colorful or iridescent nanoparticles used by artists as an artistic medium (*Figure 1*).

The Nano-ha collective will not only highlight and communicate the unique science of nanoparticles, but the exhibit will also further engage the audience to consider the balance of risk and reward in such emerging technologies. Moreover, we plan to highlight these themes and our process of discovery by publishing those findings for the broader community.



*Figure 1. [above] Example image of gold and silver nanomaterial solutions in small tubes. As the size of the materials increases the color and opalescent properties transform. Such dramatic visual effects are otherwise unknown in our daily lives. [below] Black and white electron microscopy images of silver nanomaterials taken by Wheeler. From left to right, the nanomaterials are shown alone and with "tails" caused by a dramatic reaction with biomolecules in blood.*