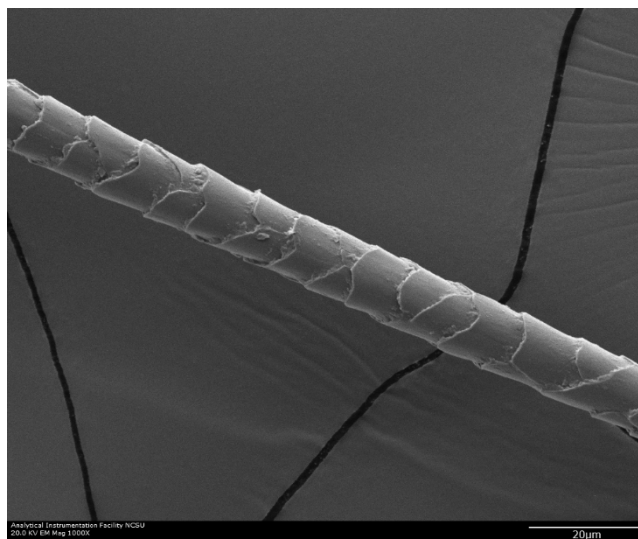# APPLICATION NOTE | Hair Contaminant Identification

Hair is a material that is of great interest to humans. We spend large amounts of time and money taking care of, styling, augmenting, and replacing our own hair. Animal hairs are also of great interest. Humans use animal hairs to make clothing (sheep and goat wool especially).
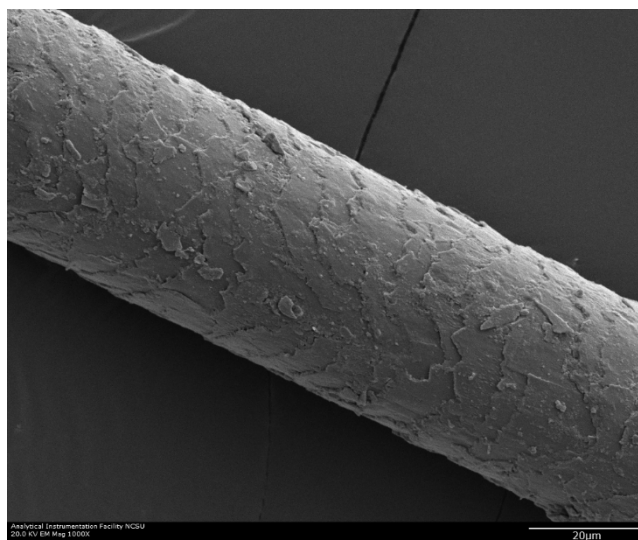
Hairs are often found as contaminants. One place where hair contamination is to be avoided is in the manufacture of pharmaceuticals. A local pharmaceutical manufacturer approached with an unusual fiber that needed to be identified. It was quickly realized that this fiber was a hair, but not a human hair.

The source of the hair had to be identified to insure the safety of the pharmaceutical stream and to insure that there was not a rodent or some other potential disease vector lurking in the pharmaceutical manufacturing plant. Many hairs were collected from a variety of animal species that were considered likely to have contributed the hair. The most obvious species were pets and invasive vermin.

The hair was determined to be that of a ferret, which was considered to be great news since ferrets are not indigenous to NC and are often kept as pets. It was also considered unlikely that a ferret could roam around in a pharmaceutical manufacturing plant without being noticed (unlike a mouse). It was found that an employee who works on the line where the hair was found has a pet ferret.
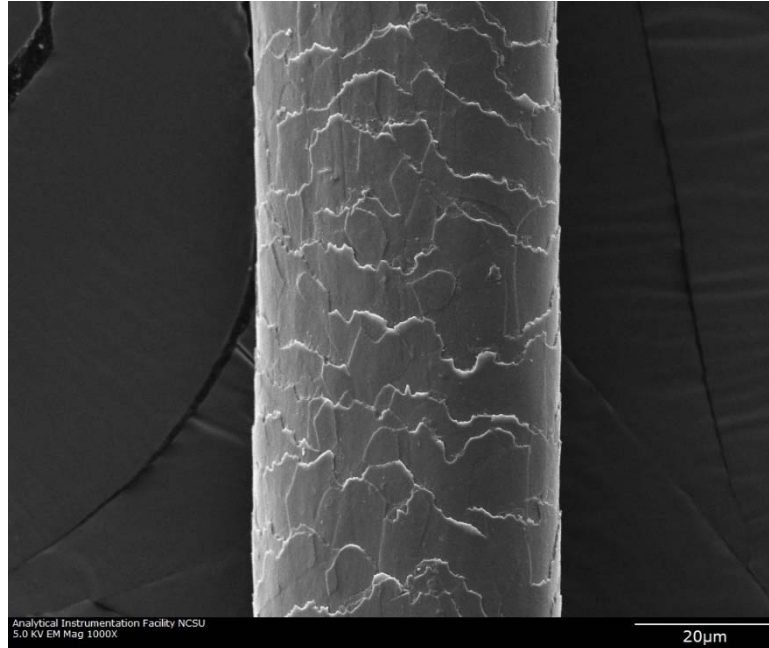

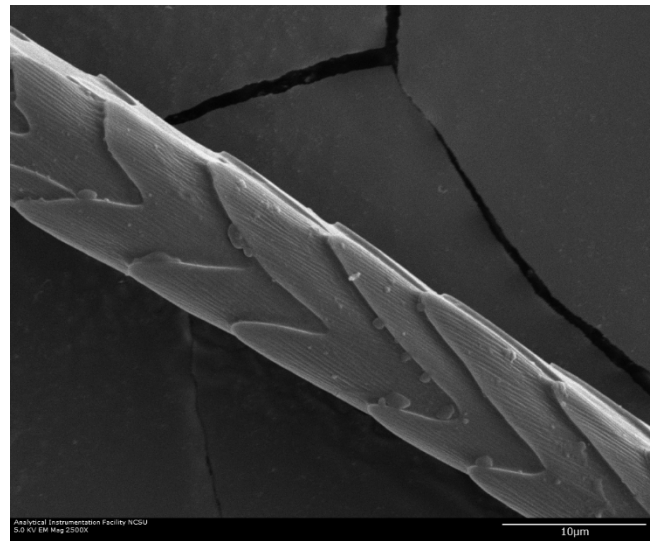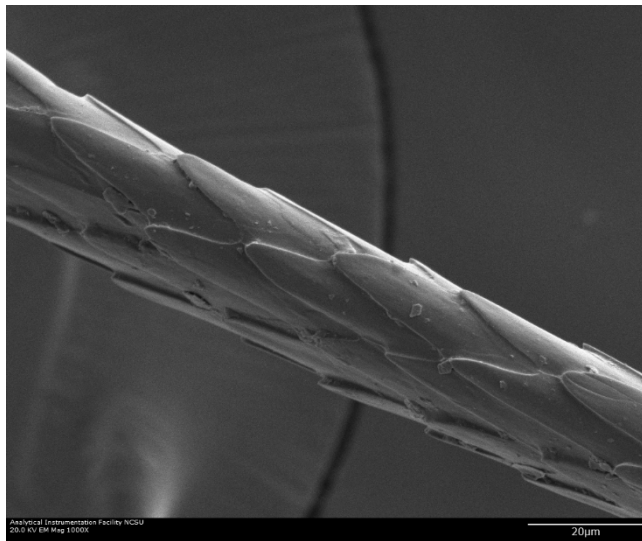Cat hair above. Dog hair below (needs a bath!)

AIF analytical instrumentation facility

VPSEM

Human Hair

Ferret hair on left. Rabbit down on right. Very similar, but the peaks of the cuticles touch the valley on the ferret and peaks point to peaks on the rabbit down.