

Released 7/21/09

Randy S. Wymore, Ph.D.

Statement on Morgellons disease: Center for the Investigation of Morgellons Disease, OSU-CHS.

Morgellons is a condition which has an array of unusual symptoms. The sufferer often has skin lesions which heal very slowly and both the lesions and non-lesioned skin are associated with fibers and other material which seems to be shed from the skin. The skin symptoms are usually associated with intense itching as well as burning and stinging sensations. Many with Morgellons experience intense episodes of fatigue along neurological effects that usually fluctuate in intensity in an unpredictable fashion. The neurological effects can include tremors, peripheral neuropathy, difficulty in focusing thoughts and behavioral changes. Since there are no commonly characterized diseases or disorders that match these symptoms, many with Morgellons have been mislabeled as having a purely psychiatric disorder. This misdiagnosis has caused much needless suffering within the Morgellons community and is unnecessary as a careful skin examination can usually determine whether or not a person has Morgellons. A clinical dermatoscope can be utilized to visualize fibers in the skin. In addition, fiber masses under the unbroken, superficial skin have been observed in every Morgellons patient examined by OSU-CHS clinical faculty. Thus far, only individuals claiming to have Morgellons have been observed to have such fiber masses within areas of otherwise normal appearing skin. To date we still do not know the cause of Morgellons or a definitive treatment plan.

At Oklahoma State University Center for Health Sciences (OSU-CHS), our approach has been to: 1) characterize the physical properties of the fibers by microscopic and spectroscopic analyses, 2) culture bacteria and fungi associated with Morgellons samples, and 3) sequence DNA associated with the samples. This last approach is in an effort to identify any unusual microorganisms or parasites that might be present. Large donations are funding analysis of the fibers, which we are hiring commercial materials analysis laboratories to perform, as well as some electron microscopy at the main OSU campus. These large donations will also fund a significant part of a DNA analysis technique known as 'shotgun sequencing'. The problem with standard DNA amplification and sequencing, which we do in-house, is that it is time consuming and every single sample must be prepared individually. Plus we cannot effectively look for 'unknowns'; that is to say we can only look for things we are expecting to find. With shotgun sequencing there need not be any pre-bias; the process will generate thousands of fragments of DNA sequence that can then be analyzed. This will include human DNA fragments, from the host, as well as bacteria and fungi we would commonly expect to find. The hope is that in addition

to the many species of microorganisms that live in and on us all, an unexpected parasitic or microbial DNA sequence will also emerge. Once we have a clue to follow, it will be possible to look for that microorganism or parasite in other Morgellons sufferers.

As is often the case in science, things take much longer than an educated guess might expect. It had been hoped that preliminary results from the microscopy and spectroscopy analyses would have been done 2-3 months ago. Unexpected difficulty has arisen with the processing, handling and shipping of the fibers. Even the commercial laboratories have been less than successful at helping us work through these problems. Simply put, the fibers have to be 'preprocessed' for much of the testing, and even for those tests not needing preprocessing, the labs want either dozens of identical copies of the material, or a single sample that is immobilized for shipping and yet accessible for analysis. These have proven to be unexpectedly challenging tasks. Still, progress is being made. When a suspect cause has been determined this information will be disseminated to physicians, public health officials and the Morgellons community as quickly as possible.

---

Cindy Casey, RN

Director

The Charles E. Holman Foundation

A National Morgellons Organization

Promoting Medical Education, Scientific Research

and Patient Support

[www.thenmo.org](http://www.thenmo.org)