Progress Toward a Better Understanding of Meibomian Gland Dysfunction

By Kelly K. Nichols, OD, MPH, PhD and Gary N. Foulks, MD

The millions of patients who suffer each day from dry eye eagerly await any interventions that might help them cope with—if not cure outright—the ocular surface disorder they have reluctantly learned to live with. So it's incumbent upon those of us entrusted with their care to make sure that our clinical skills reflect the very latest research and the consensus opinions of the experts conducting leading-edge research in the field.

The Tear Film and Ocular Surface Society (TFOS) is a nonprofit organization with the primary mission of advancing research, literacy and educational aspects of the scientific field of the tear film and ocular surface (www.tearfilm.org) across the globe. In addition to conferences held every three years, the most publicized projects supported by TFOS are its “workshops.” For instance, in 2007 the Report of the International Dry Eye Workshop (DEWS) was published in The Ocular Surface, and has since been translated into six languages. One could argue that this document as a whole has had the most significant impact on the field in terms of increasing worldwide awareness of dry eye disease. Excitingly, we may be on the cusp of a similar breakthrough for the subset of dry eye conditions rooted in dysfunction of the meibomian glands.

The MGD Workshop

In late 2008, TFOS initiated a workshop on meibomian gland dysfunction. More than 50 international experts participated in the effort, which occurred over a two-year period. The process was sponsored generously through industry support via unrestricted grants to TFOS, allowing volunteers to come together to create a consensus overview of the field. In addition to an exhaustive
international literature-based review of the salient clinical, 
translational and basic research, emerging concepts such as a new 
diagnostic and management algorithm are also included. Thus, this 
report, published in the March/April 2011 issue of Investigative 
4) is the most current, definitive summary of the meibomian gland 
in health and disease.

A two-page perforated pull-out summary of the full report, 
compliments of TFOS, will appear next month in the May 
issue of Ophthalmology Management.

Highlighted in the summary are the following: 
● A consensus definition and classification scheme for MGD.
● An evidence-based diagnosis and management algorithm.
● A current schematic of the etiology and associated patho-physiology of MGD.
● A review of the prevalence and associated risk factors for MGD.

The full report can soon be found at iovs.org (an ARVO journal) or 
linked through the TFOS website (tearfilm.org).