



Hindawi

Journal of Ophthalmology

Special Issue on

**Lacrimal Gland, Ocular Surface, and Dry Eye**

# CALL FOR PAPERS

The main lacrimal gland, along with the ocular surface, which typically includes cornea, conjunctiva, meibomian gland, and other accessory glands, plays critical roles in the ocular surface system/lacrimal functional unit. The interdependence and cross talk among them are essential in maintaining the normal physiology and function of the ocular surface, providing essential nutrients, lubrication, and protection to the eyes to maintain their normal functions. Deficiencies in any of these tissues may lead to ocular surface diseases and vision impairment in its severe form.

There has been enormous progress in our understanding of the components of the ocular surface system/lacrimal functional unit in the past 15 years. A quick PubMed search, using lacrimal gland and dry eye as key words, resulted in 1,420 publications tracing back to as early as 1946, with 880 of them published since 2000 (62% of the total). By using conjunctiva and dry eye as key words, we found a total of 1,012 publications, with 669 of them published since 2000 (66% of the total, the earliest publication was in 1952). The main lacrimal gland is considered the major source of tear fluid, whereas in humans the conjunctiva occupies about 17 times more of the surface area than the cornea. Increasing evidence suggest that both of them play essential roles in the etiology, progression, management, and prognosis of ocular surface diseases. The interactions among components of the ocular surface system/lacrimal functional unit are vital to maintain the homeostasis of the ocular surface. Therefore it is critical to look at it as one unit in order to understand the pathogenesis of ocular surface diseases such as dry eye.

Dry eye is the most common reason patients visit eye-care professionals, with epidemiology studies suggesting their prevalence to be ranging from 1 to 2% of the general population and can be as high as 30% in some groups, namely, seniors and women. Unfortunately, little is known about the etiology and pathogenesis of dry eye, and hence very limited management options are available at present. This further translates into enormous societal burden and economical losses, which have been estimated to be ~\$55 billion/year in the United States alone, from this debilitating disease.

In this special issue, we invite authors to submit their original research articles and review papers pertinent to this general theme.

Potential topics include, but are not limited to:

- ▶ Anatomy, histology, physiology, and pathology of lacrimal gland and ocular surface tissues, for example, Meibomian gland, cornea, conjunctiva, goblet cells, and accessory glands
- ▶ Tear production: neural control, endocrine, immunology, and so on
- ▶ Mucins: production and their roles in dry eye
- ▶ Etiology of dry eye: Sjögren's syndrome-related, non-Sjögren's syndrome-related, evaporative, dry eye associated with other diseases especially other autoimmune diseases, and so on
- ▶ Diagnosis of dry eye, especially biomarkers for its early and specific diagnosis
- ▶ Novel proposals for the definition and classification of dry eye
- ▶ Epidemiology of dry eye
- ▶ Current and innovative treatment approaches for dry eye, for example, anti-inflammation, gene therapy
- ▶ Novel drug development and delivery approaches, for example, nanotechnology, for dry eye management

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/joph/lagos/>.

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