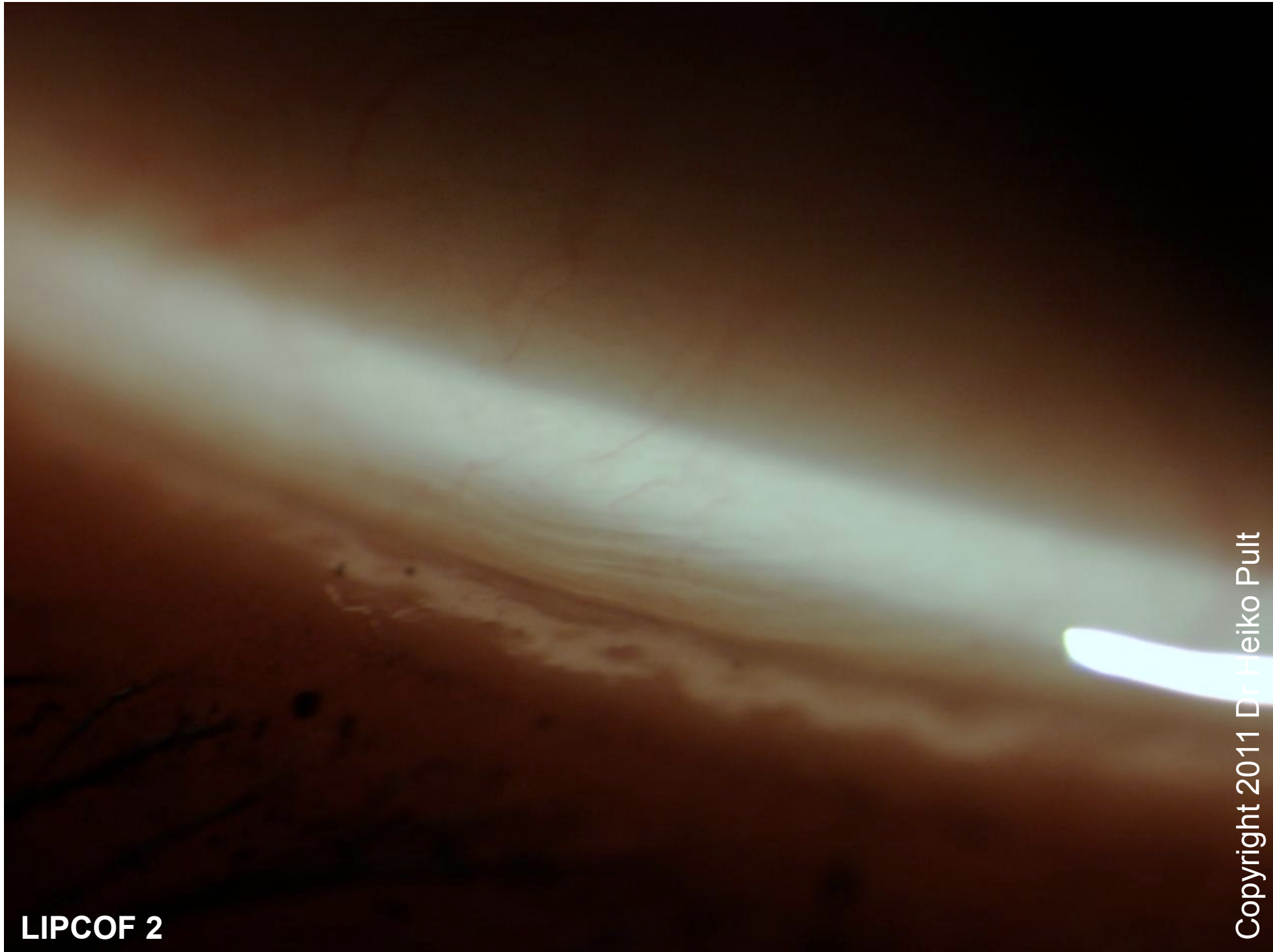


LIPCOF: Evaluation and Classification

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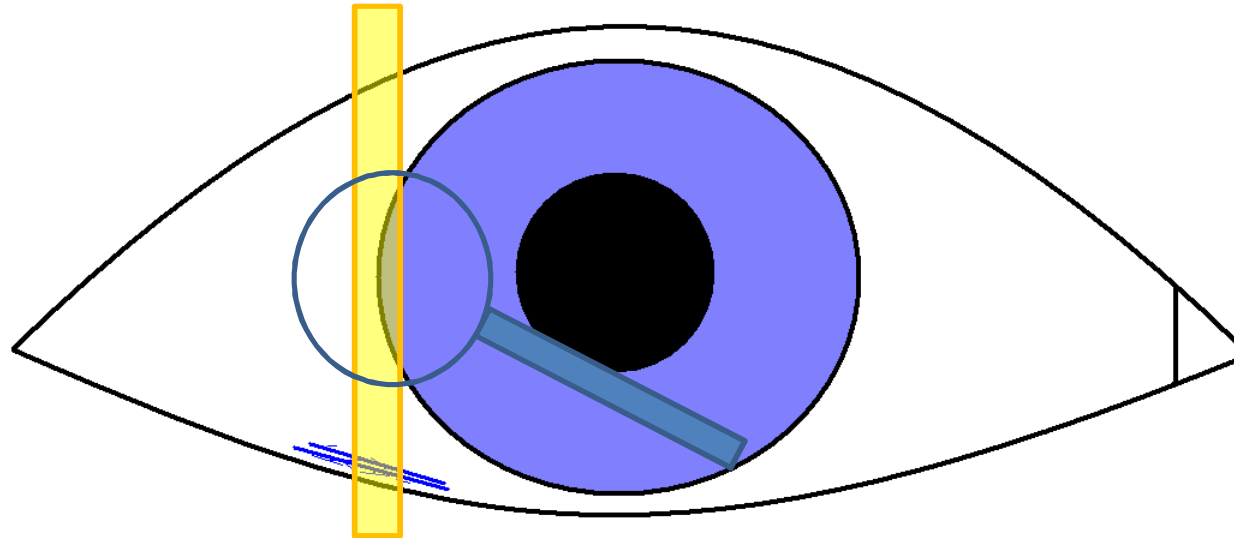
LIPCOF 2

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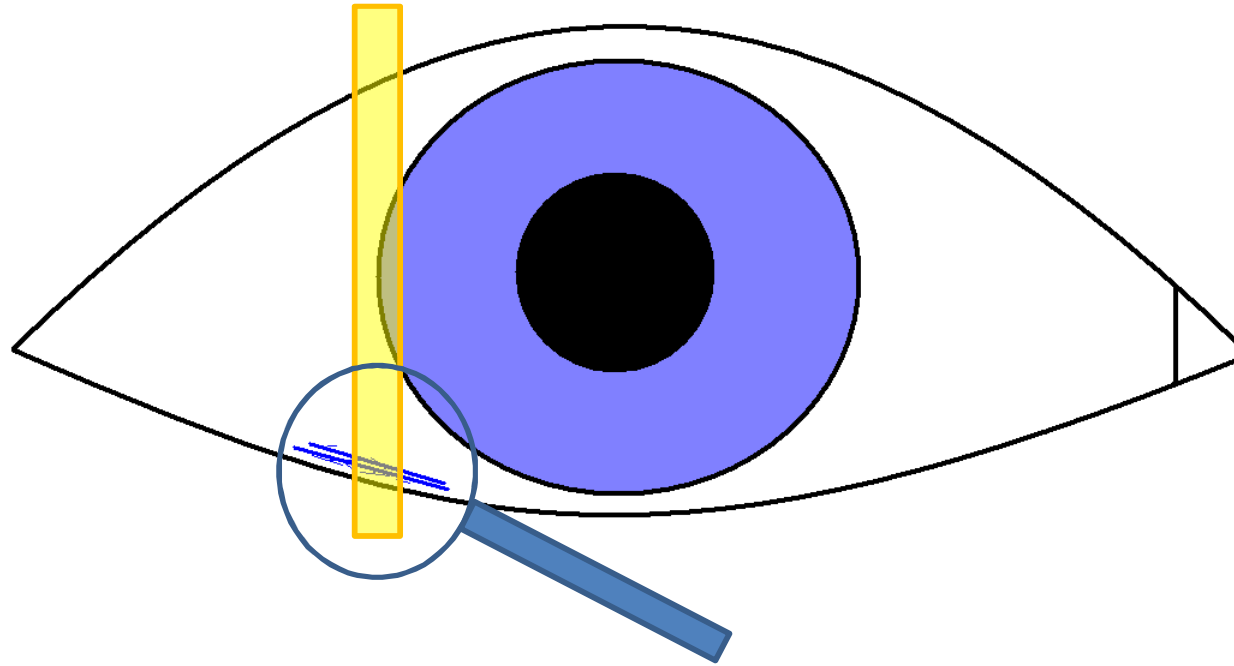
Definition:

LIPCOF are evaluated in the area **perpendicular to the temporal and nasal limbus** on the bulbar conjunctiva above the lower lid (temporal and nasal LIPCOF, respectively) with a slit-lamp microscope using 18–27 magnification as necessary – **no fluorescein** - and classified using the optimized grading scale. A further combined LIPCOF score (LIPCOF Sum) can be calculated by adding together the nasal LIPCOF grade and temporal LIPCOF grade. **Care has to be taken to differentiate between parallel, permanent conjunctival folds (LIPCOF) and disrupted micro-folds**

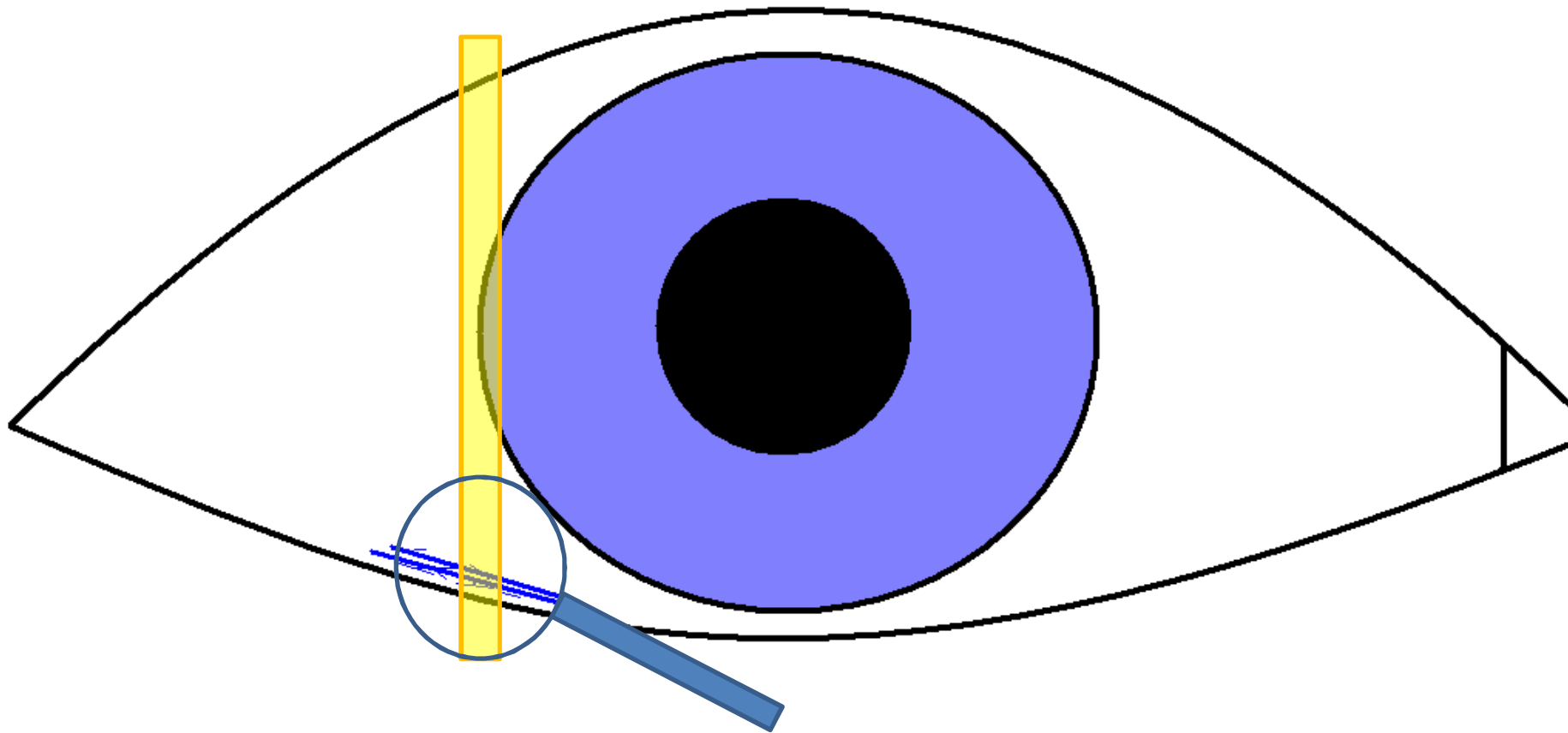
Orientation: Low magnification, project the slit-lamp beam to the limbus



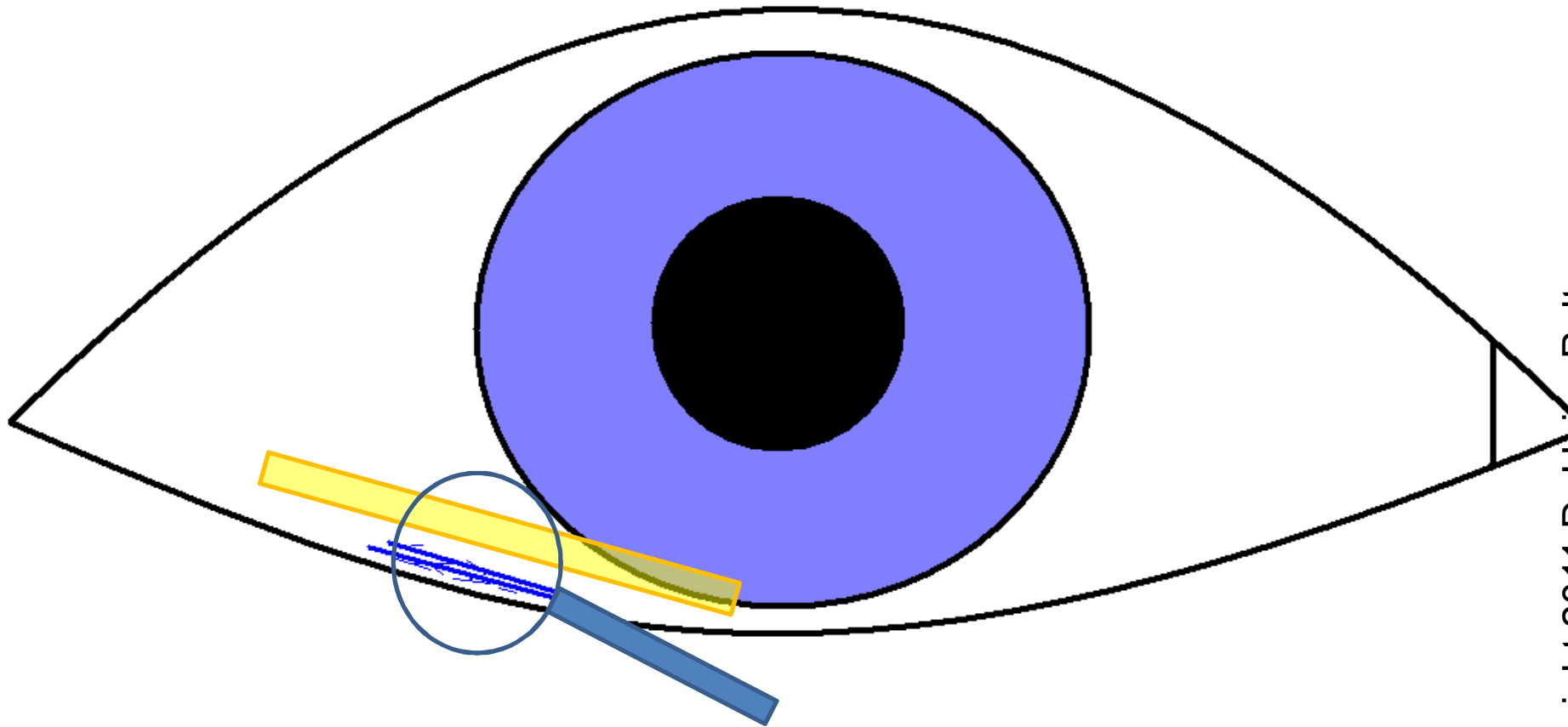
Orientation: Move down to the lower lid margin



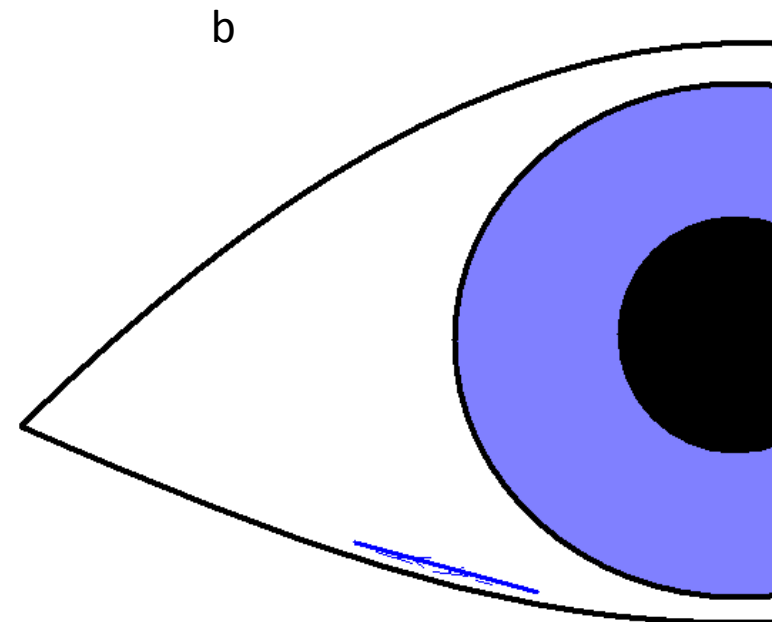
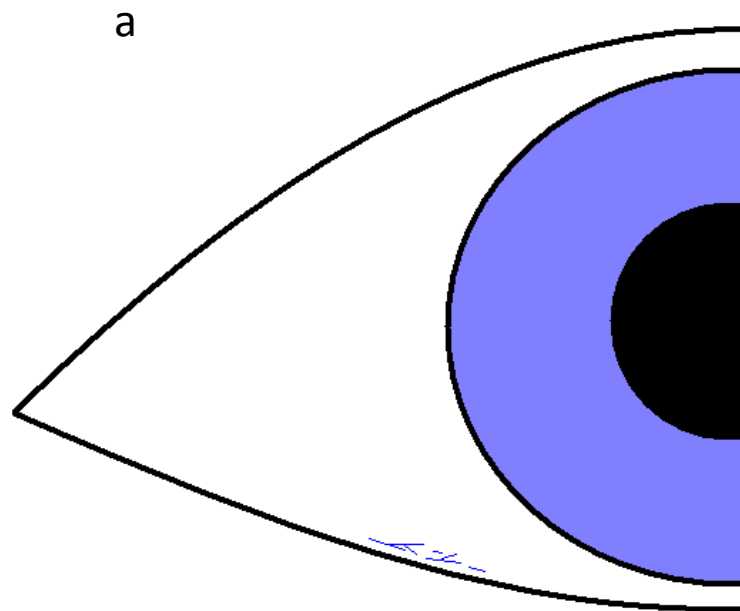
Evaluation: Enlarge magnification to maximal 27x when classifying LIPCOF



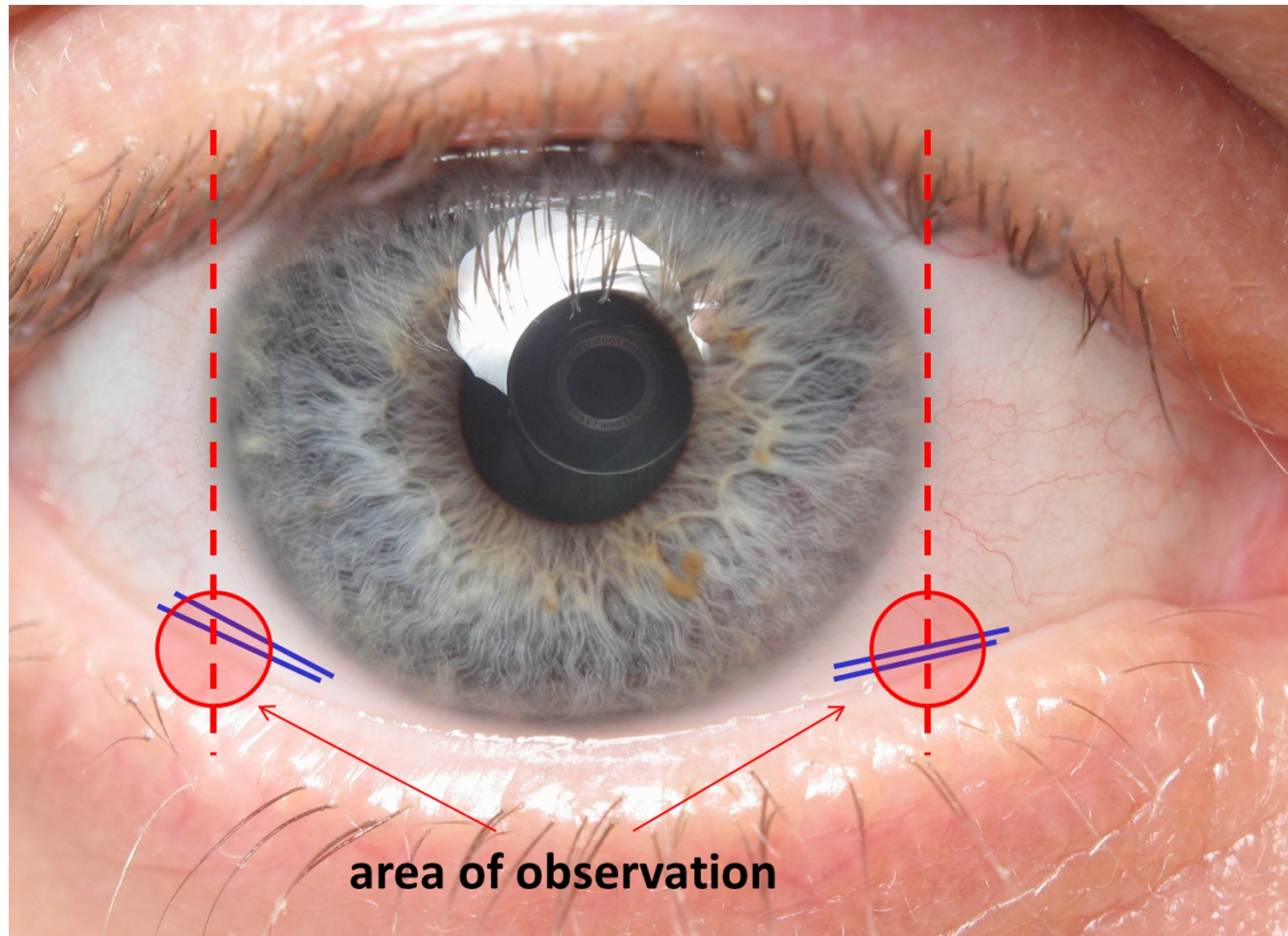
Evaluation: Regredient illumination by rotating the slit lamp beam to be parallel to the folds might enhance observation



Important: Distinguish from micro-folds (a) and LIPCOF (b), the latter are parallel to the lid margin and its thickness mostly is 0.08mm (half of a normal tear meniscus height), while microfolds are 0.01mm. LIPCOF is a fold parallel to the lid margin!

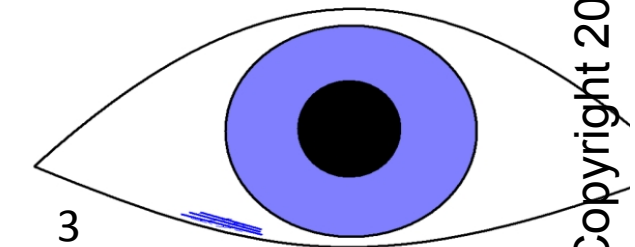
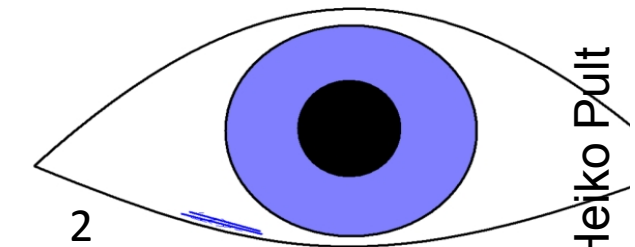
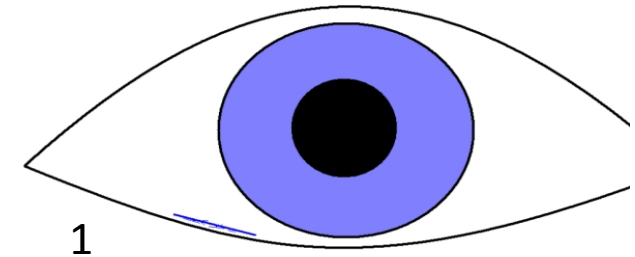
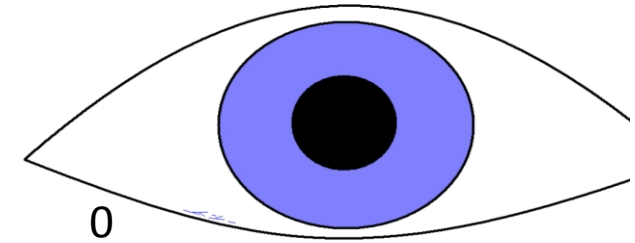


Important: Observe temporal and nasal at defined area of observation



Grading:

	LIPCOF degree
No conjunctival folds	0
One permanent and clear parallel fold	1
Two permanent and clear parallel folds	2
More than two permanent and clear parallel folds	3



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Dry eye thresholds:

- Temporal LIPCOF ≥ 2
- Nasal LIPCOF ≥ 2
- LIPCOF Sum ≥ 2
 - LIPCOF Sum = nasal LIPCOF + temporal LIPCOF

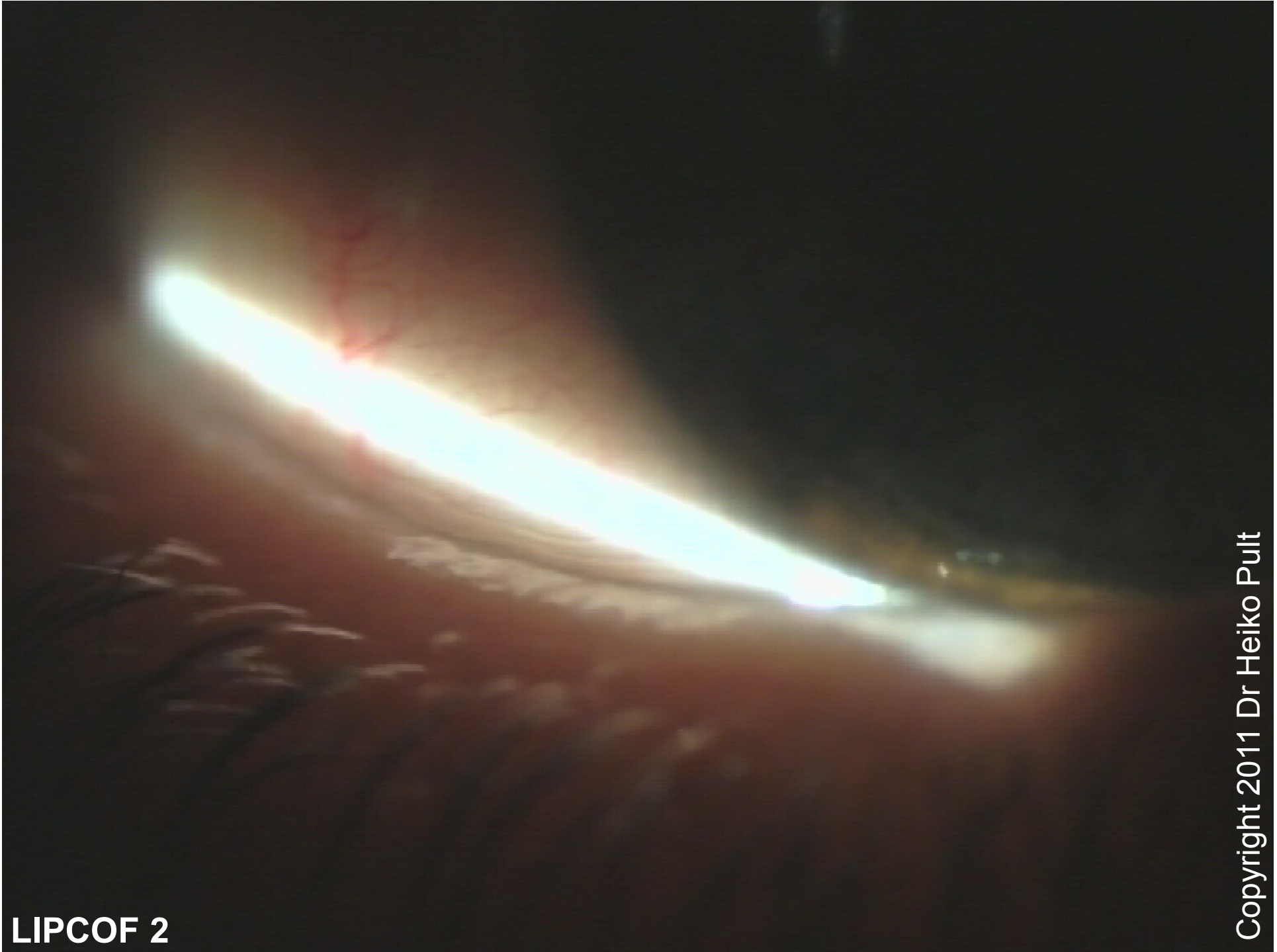
LIPCOF 1

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LIPCOF 2

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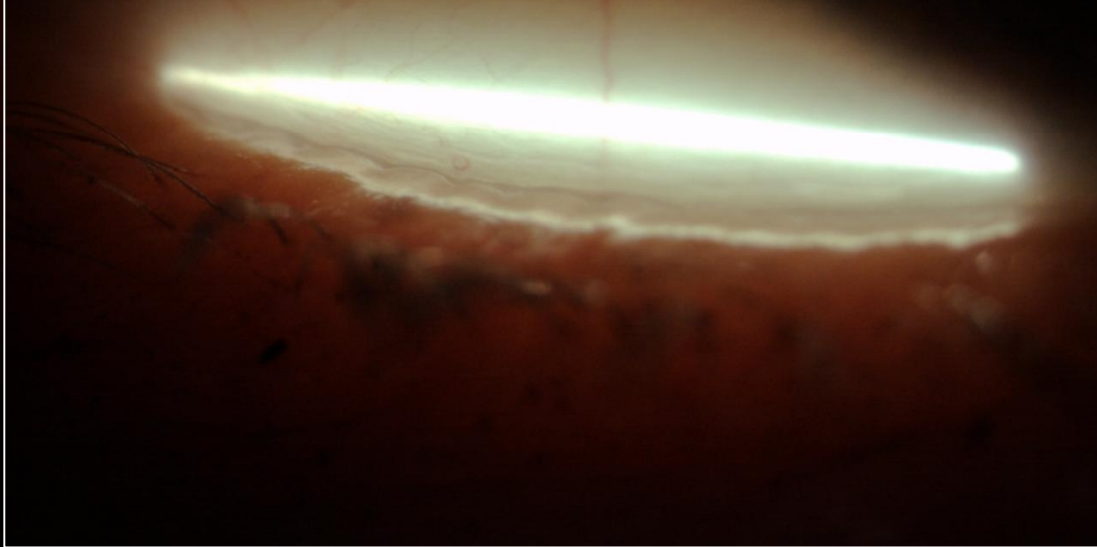


LIPCOF 3

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Do not use vital dyes!

Fluorescein or Lissamine green misleads classification, e.g. highlighting micro-folds!



LIPCOF 0

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