Molecular dissection of the dysferlin protein complex in skeletal muscle

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Statements with the thesis

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1. The variable domain of the camelid heavy chain antibodies, VHH, is comprised of a single immunoglobulin domain and represents the smallest, naturally occurring, antigen-binding molecule known to date (Muyldermans, S. *et al*. 1999).
2. High-affinity VHH can be selected from a nonimmune llama-derived phage display library, which is functional in Western blotting, immunofluorescence microscopy and immunoprecipitation (this thesis and Verheesen P. *et al*., 2006).
3. Calpain 3, which shows a secondary reduction in the dysferlinopathies, is in complex with dysferlin in skeletal muscle (this thesis).
4. Identical dysferlin mutations cause a variable phenotype within a family while a similar clinical presentation can be caused by different mutations (Weiler, T. *et al*., 1999; Argov, Z. *et al*., 2000).
5. The clinical heterogeneity in patients with a muscular dystrophy may be explained by natural variation in proteins that are associated with the defective protein (Angelini C. 1999; Weiler T. *et al*., 1999).
6. AHNAK interacts with dysferlin and myoferlin and a secondary reduction of AHNAK proportional to the loss of dysferlin is observed in transverse muscle cryosections of dysferlinopathy patients by immunofluorescence microcopy (this thesis).
7. AHNAK interacts with calpain 3 and serves as a substrate for calpain 3 (this thesis).
8. Dysferlin is implicated in sarcolemmal resealing: it facilitates vesicle docking and fusion with the plasma membrane by interacting with other dysferlin molecules and unknown proteins at the plasma membrane (Bansal, D. *et al*., 2004).
9. I know quite certainly that I myself have no special talent; curiosity, obsession and dogged endurance, combined with self-criticism have brought me to my ideas (Albert Einstein).
10. Work joyfully and peacefully, knowing that right thoughts and right efforts inevitably bring about right results (James Allen).
11. Science is a wonderful thing if one does not have to earn one's living at it (Albert Einstein).
12. Enjoy life. There's plenty of time to be dead (Hans Christian Andersen).