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RNDr. thesis

**A photosynthetic alveolate closely related to
apicomplexan parasites**

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CHRUDIMSKÝ T. 2008: A photosynthetic alveolate closely related to apicomplexan parasites. RNDr. thesis in English. Faculty of Science, University of South Bohemia in České Budějovice, Czech Republic, 42 pages.

Annotation

Most apicomplexan parasites possess the apicoplast, a plastid remnant that has lost its photosynthetic function, but is still essential for the parasite's survival. As a prospective drug target, this organelle is currently of interest for medical research. Since the size of the apicoplast genome has reduced to approximately 35 kb due to parasitic lifestyles, it is very difficult to recover its evolutionary history. In this study, we described a novel alveolate *Chromera velia*, which is the closest known photosynthetic relative of apicomplexans. Due to this position, *Chromera velia* could become a key organism in studying evolution of the parasitism within the phylum Apicomplexa. Moreover, since *Chromera* can be cultured easily and cheaply, it may be useful in medical research to lower the cost of testing drugs that are targeted to apicomplexans.

Author statement

I'm the fourth author of the article A photosynthetic alveolate closely related to apicomplexan parasites published in the Nature 2008, 451, 959-963. I contributed substantially to this paper. Description of my contribution is part of the article.