

# Structural insights into EHD-mediated membrane remodelling and its role in regulating cellular fatty acid uptake

**O. Daumke**<sup>1</sup>

<sup>1</sup> Max-Delbrueck-Center for Molecular Medicine, Berlin, Germany

## Content

### Introduction

Eps15 homology domain containing proteins comprise a family of dynamin-related eukaryotic, membrane remodelling ATPases.

### Methods

My group uses various structural biology techniques to characterize the mechanisms of these proteins in membrane binding and remodelling. Furthermore, we recently generated and characterized a knockout mouse for EHD2, which is a caveola-associated protein.

### Results

I will review our previous structural data on EHD proteins and introduce new data on the membrane-binding and oligomerization mode of EHDs. I will also summarize results from our EHD2 knockout mouse, showing that EHD2 regulates caveola-dependent lipid uptake.

### Conclusions

Our studies elucidate the mechanisms of EHD-mediated membrane remodelling, which plays a role in various cellular pathways, including the control of lipid metabolism.

### Affix

#### References

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