

51. Endocytosis

1 unit, Michael Overholtzer, November 11, 2025

Endocytic pathways, mechanisms of vesicle formation and trafficking

Clathrin, dynamin, etc.

Early endosome/sorting endosome trafficking

Rabs and effectors, phospholipids

Recycling

MVB formation

Transport to the lysosome

Phagocytosis and macropinocytosis as models for endocytic trafficking

Regulation of macroendocytic processes by autophagy proteins

Lysosome fission and fusion

Nutrient sensing

Nutrient scavenging

Papers

Discussion:

Cell. 2015 Jul 16;162(2):259-70. doi: 10.1016/j.cell.2015.06.017. Epub 2015 Jul 2.

The Utilization of Extracellular Proteins as Nutrients Is Suppressed by mTORC1.

Palm W, Park Y, Wright K, Pavlova NN, Tuveson DA, Thompson CB. PMID: 26144316

Reviews:

Annu Rev Biochem. 2009;78:857-902. doi: 10.1146/annurev.biochem.78.081307.110540.

Mechanisms of endocytosis. Doherty GJ, McMahon HT. PMID: 19317650

EMBO J. 2011 Aug 31;30(17):3481-500. doi: 10.1038/emboj.2011.286.

Endosome maturation. Huotari J, Helenius A. PMID: 21878991