

Prof. Dr. Ferruh Artunc

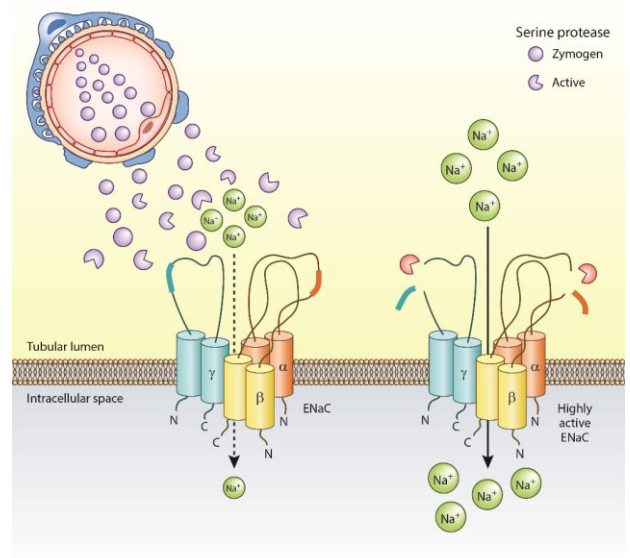
Innere Medizin IV – Diabetologie, Endokrinologie, Nephrologie,
Universitätsklinikum Tübingen

Proteolytic processing of the epithelial sodium channel ENaC in vivo

The research group of Prof. Dr. med. Ferruh Artunc is concerned with the elucidation of the mechanisms underlying sodium retention and edema formation in patients with nephrotic syndrome.

The group's findings to date show that in nephrotic syndrome, serine proteases filter through the damaged glomerulus into the tubular space and can be detected in active form in the urine. This proteasuria is accused of causing proteolytic activation of the epithelial sodium channel ENaC in the distal tubule with subsequent sodium retention. The research group demonstrated that treatment of nephrotic mice with the serine protease inhibitor aprotinin can prevent the development of edema. Accordingly, pharmacological manipulation of proteasuria could be developed into a novel therapeutic approach to treat sodium retention and edema development in patients with nephrotic syndrome. The research group is working hard to identify the pathophysiologically relevant serine proteases.

Model of ENaC activation in nephrotic syndrome



Time: Monday 11th October 2021, 17:15h
Location: Universität Regensburg
Institut für Physiologie
Raum VKL 4.1.29

The seminar is video transmitted via zoom

To get the zoom link please contact
michaela.kritzenberger@ur.de