# Epithelial Ion Transport Defects in Pancreatitis: establishment of an organoid model

No registrations found.

Ethical review	Positive opinion
Status	Pending
Health condition type	-
Study type	Observational non invasive

## **Summary**

### ID

NL-OMON22666

Source NTR

Brief title C-PIE

**Health condition** 

Pancreatitis

## **Sponsors and support**

Primary sponsor: Erasmus University Medical Center Source(s) of monetary or material Support: Investigator initiated

### Intervention

### **Outcome measures**

#### **Primary outcome**

The ability to culture PDEC organoids from pancreatic duct biopsies.

#### Secondary outcome

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- PDEC organoid characteristics (cellular and molecular composition)
- Ability to grow PDEC monolayers
- Ion transport (chloride and bicarbonate) in PDEC monolayers
- Ion transport (chloride and bicarbonate) in duodenal monolayers
- Carrier status for pancreatitis-related mutations

## **Study description**

#### **Background summary**

Pancreatitis is a common cause of hospitalization, with no specific therapy available other than supportive care. Recent evidence indicates that the loss of electrolyte and fluid secretion by pancreatic ductal epithelial cells (PDECs) is a key factor in the etiology of pancreatitis. In particular, dysfunction of the cystic fibrosis transmembrane conductance regulator (CFTR) has been associated with pancreatitis. We hypothesize that organoids can be cultured from pancreatic ductal biopsies, obtained from chronic pancreatitis patients, to study electrolyte and fluid secretion. The potential role of ion transport abnormalities in the etiology of pancreatitis will be investigated in pancreatic and intestinal (duodenal) organoids, the latter an established model to study CFTR function.

#### **Study objective**

Organoids can be cultured from pancreatic ductal biopsies, obtained from chronic pancreatitis patients, to study electrolyte and fluid secretion.

#### Study design

Collection will be performed during pancreatoscopy.

## Contacts

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## **Eligibility criteria**

## **Inclusion criteria**

All patients undergoing pancreatoscopy within the framework of regular diagnostics or treatment.

## **Exclusion criteria**

A potential subject that is younger than 18 years old will be excluded from participation in this study.

## Study design

### Design

Study type:	Observational non invasive
Intervention model:	Other
Allocation:	Non controlled trial
Masking:	Open (masking not used)
Control:	N/A , unknown

## Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-11-2021
Enrollment:	9
Туре:	Anticipated

### **IPD** sharing statement

Plan to share IPD: Undecided

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## **Ethics review**

Positive opinion Date: Application type:

06-10-2021 First submission

## **Study registrations**

## Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

Register	ID
NTR-new	NL9772
Other	METC Erasmus MC : MEC-2021-0737

## **Study results**