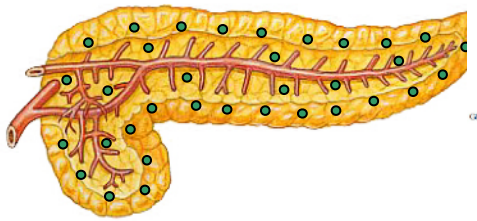
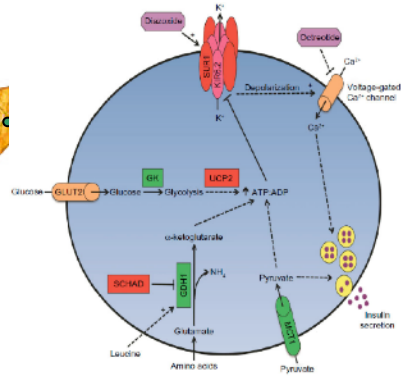
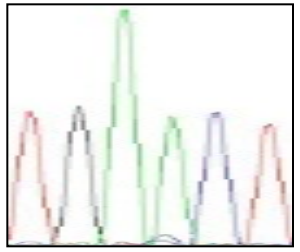
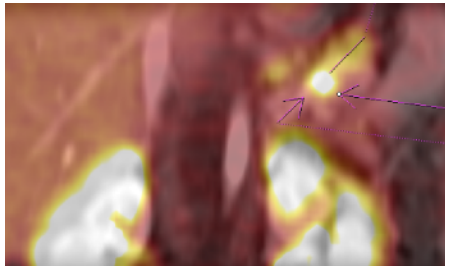
Collaborative Alliance for Congenital Hyperinsulinism (COACH):

Interinstitutional-Multidisciplinary Team









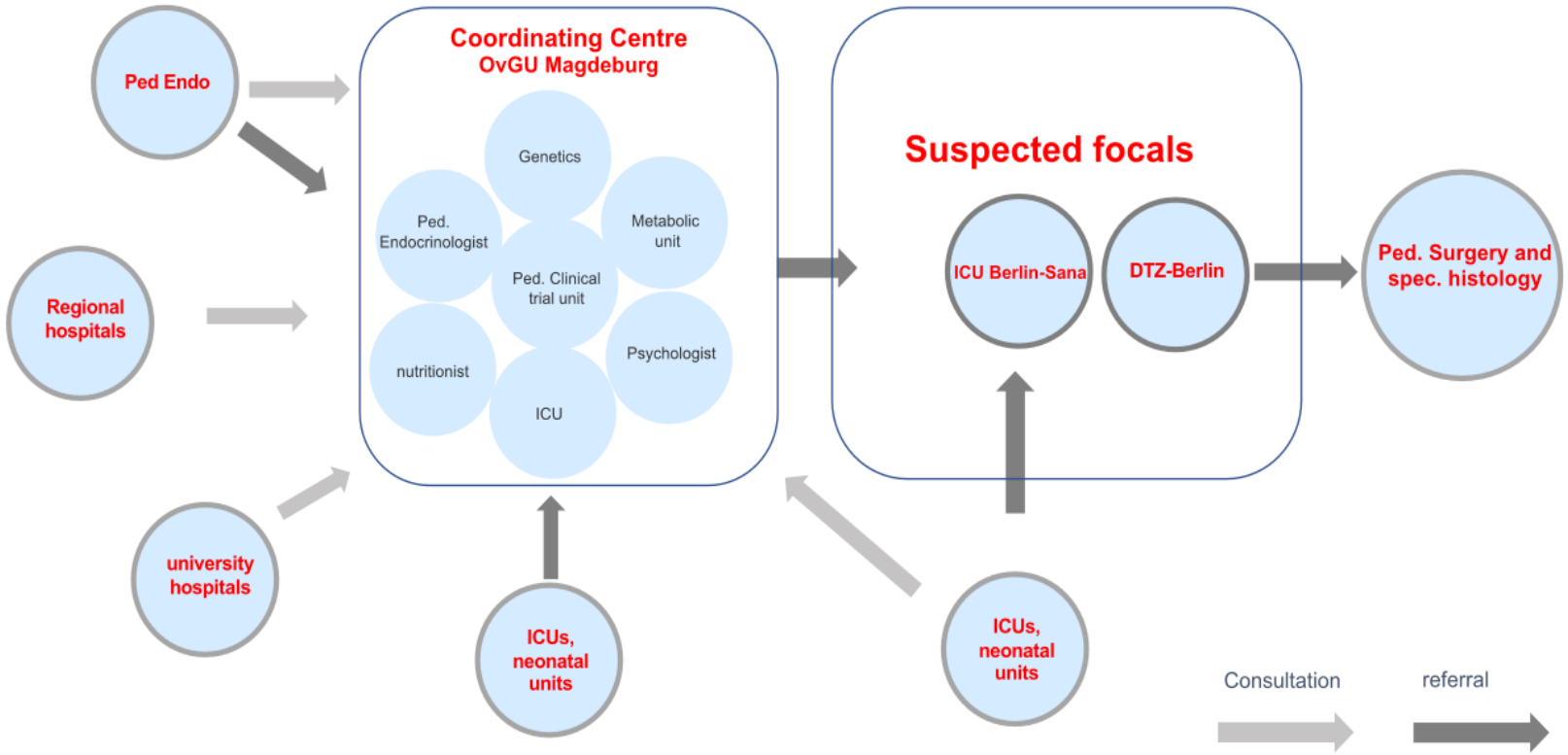
Klaus Mohnike, Otto-von-Guericke University Magdeburg und
COACH-Netzwerk

Collaborative alliance in congenital hyperinsulinism (COACH)

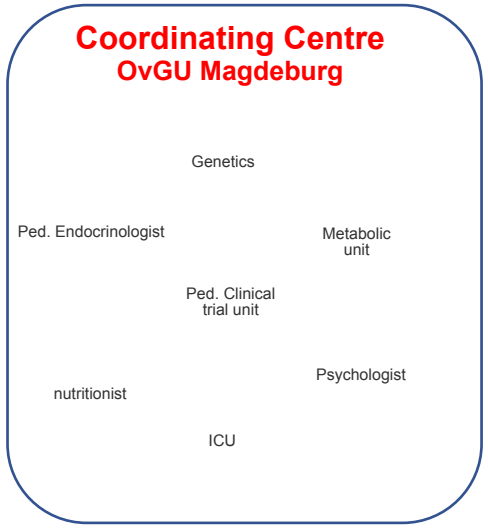
The multidisciplinary team for CHI involves partners from 4 different institutions, who worked together with specialized tasks.

1. The Otto-von-Guericke University Magdeburg is the central unit for referrals, consultation and long-term follow-up with expertise in Pediatric Endocrinology and metabolism, intensive care unit and Neonatology as well as in Human Genetics, both clinical and laboratory by Prof. Martin Zenker.
2. All intensive medical care before and during the localization diagnostic is provided by Dr. Peter Michel, Sana-Klinikum Berlin-Lichtenberg to provide euglycemic state and anesthetics during the 18F-DOPA-PET/MRI.
3. Localization diagnosis by 18F-DOPA-PET/CT or 18F-DOPA-PET/MRI (since 2016) is performed at the DTZ-Berlin, a private institution, collaborating with our center since 2003. During 18F-DOPA-PET parents will be informed and results are face-to face presented by nuclear medicine experts Prof. Wolfgang or PD Dr. Konrad Mohnike together with Prof. Winfried Barthlen and Prof. Klaus Mohnike.
4. Pancreatic Surgery is performed since 2008 in collaboration with Dept. Histopathology by the same experienced surgeon, Winfried Barthlen, now at Univ. Bielefeld.

Collaborative alliance in congenital hyperinsulinism (COACH)

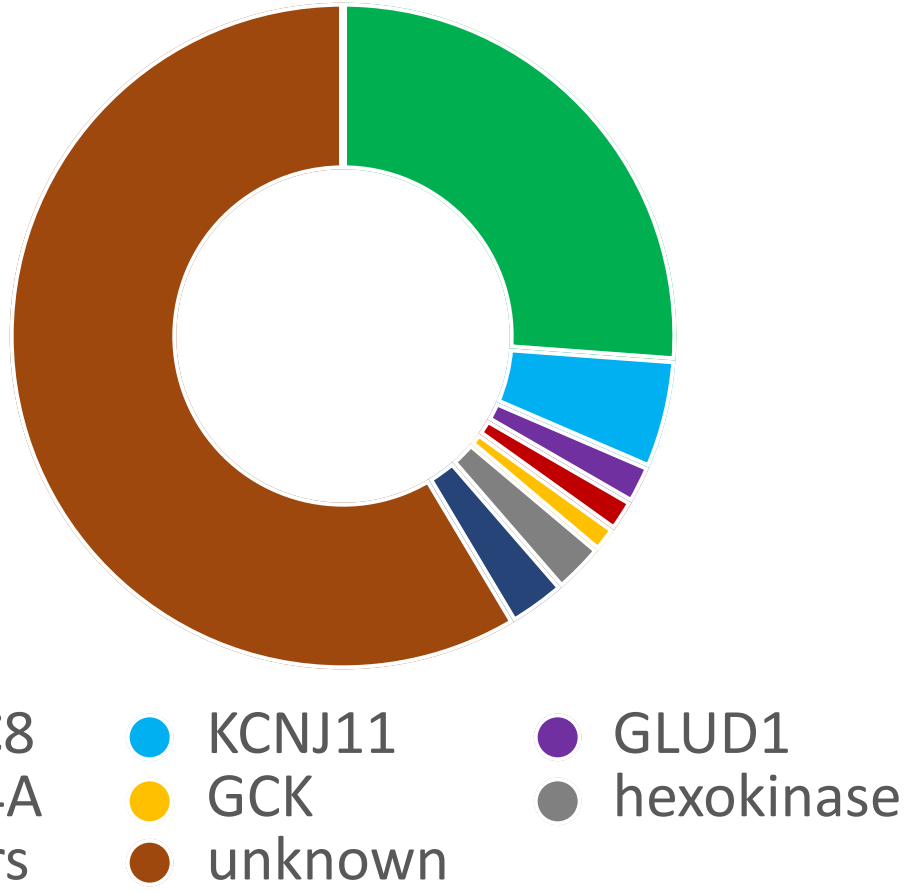


Collaborative alliance in congenital hyperinsulinism (COACH)



- Counseling of regional hospitals and families
- Molecular genetics
  - rapid testing for ABCC8/ KCNJ11
  - CHI panel, exome, genetic counseling
- Hospitalization of severe affected infants on ICU
- Pediatric Center for clinical trials
- Out-patient clinics for follow-up

Institute Human Genetics
OvGU Magdeburg (panel or exome)
(2011-2023); N=321



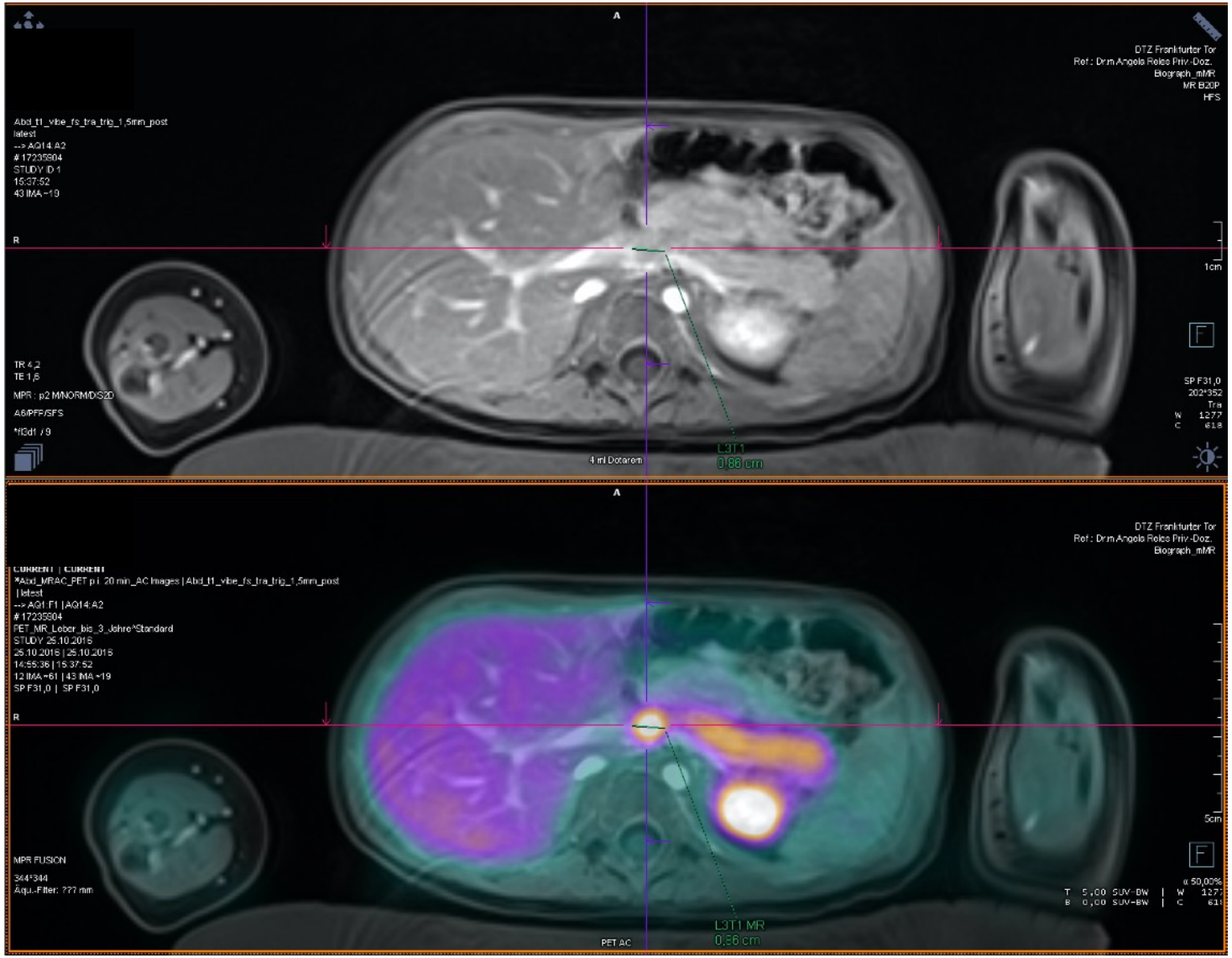
*others: HADH (3), HNF1A (1), INSR (1), SLC16A1 (1)

Localisation of focal lesion

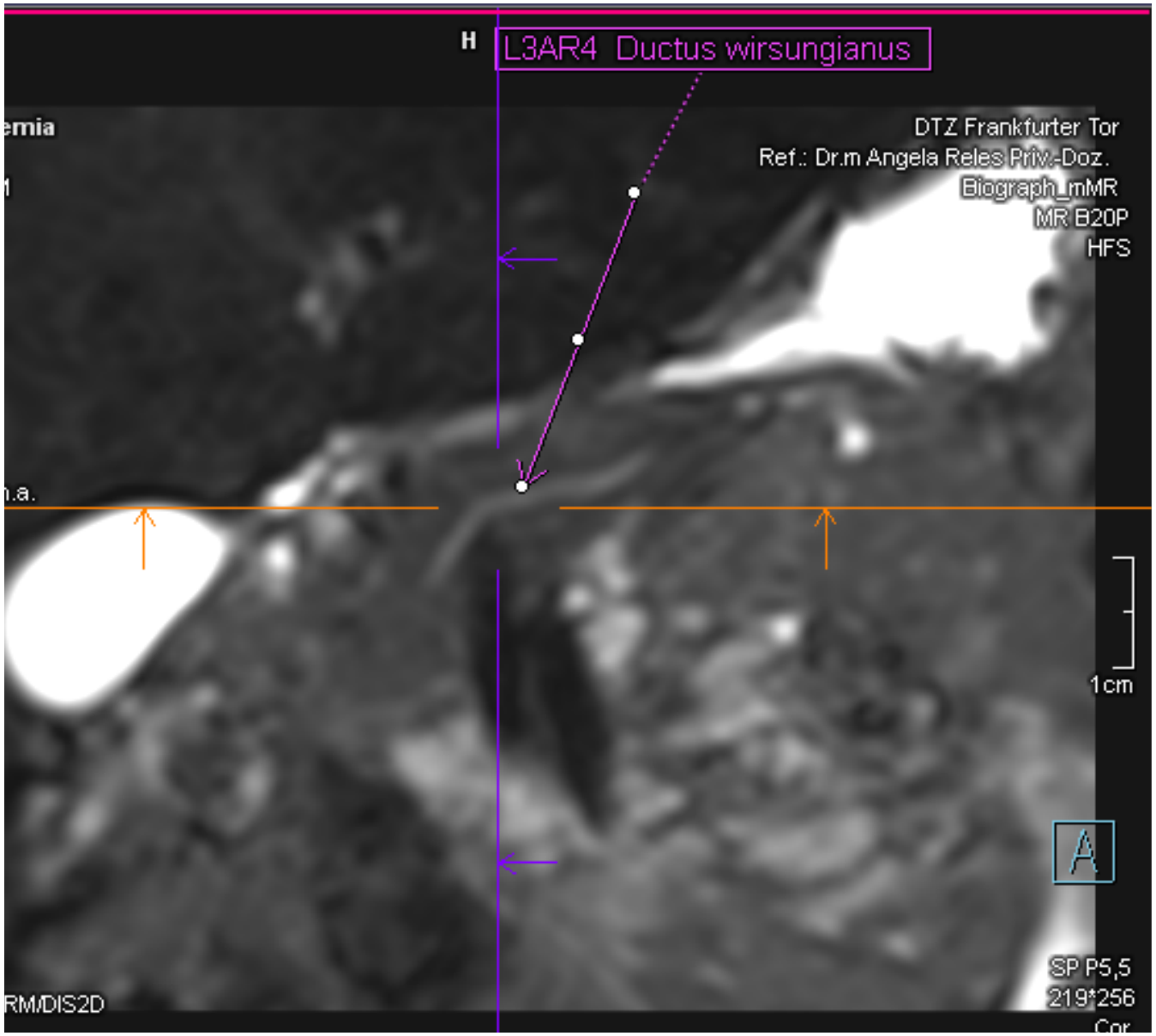
2003 to 2016: F18-Fluoro-L-DOPA PET-CT

since 2016: F18-Fluoro-L-DOPA PET-MRI

18F-DOPA PET / *MRI*
male, 7 months
paternal ABCC8 mutation

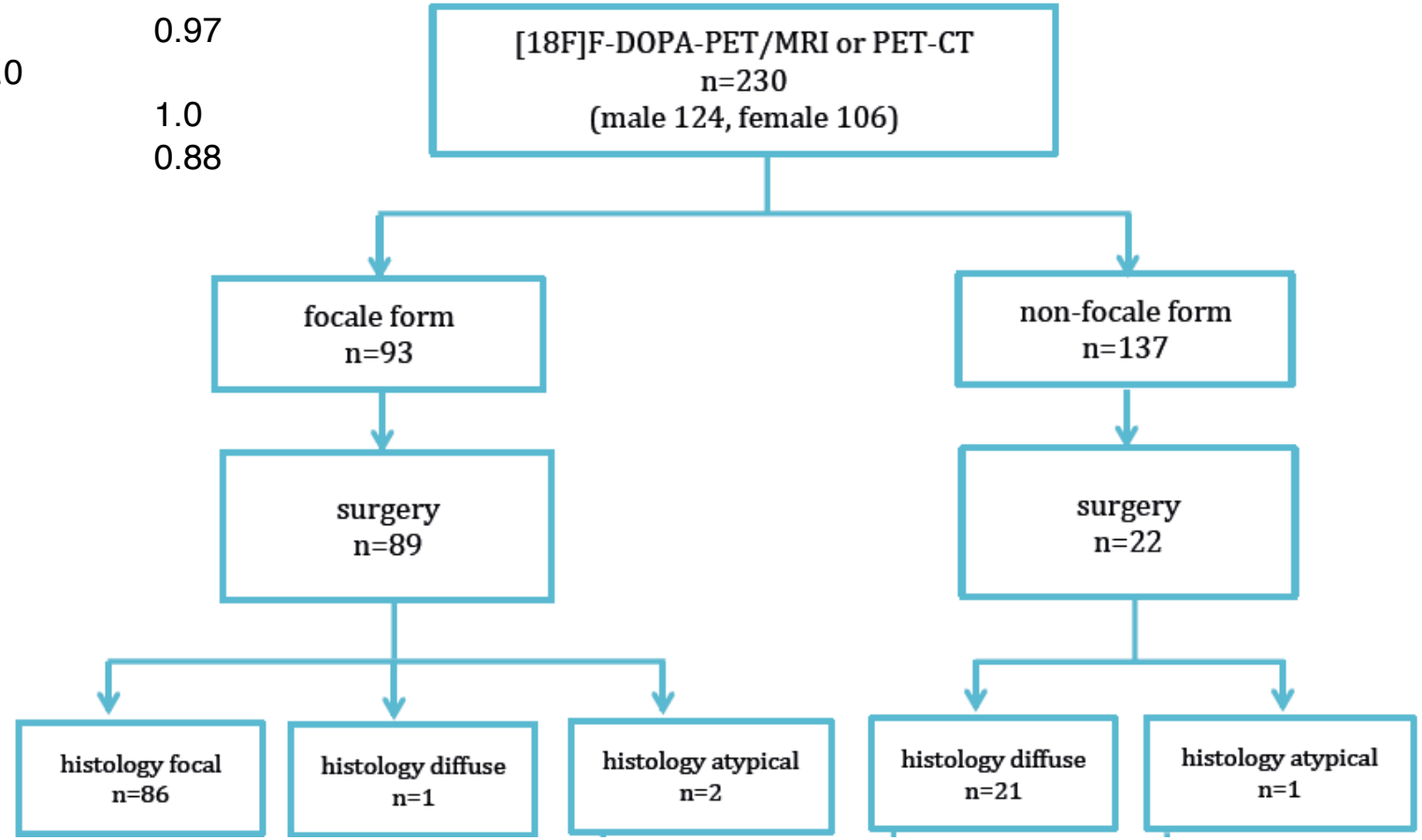


18F-DOPA PET / *MRI*
male, 7 months
paternal ABCC8 mutation

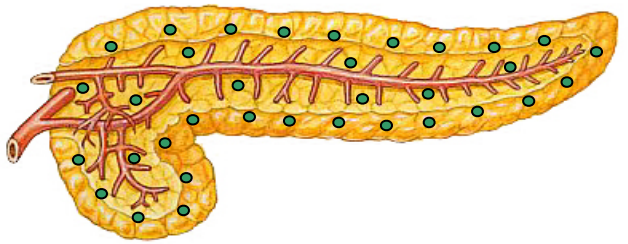


Localization diagnostics

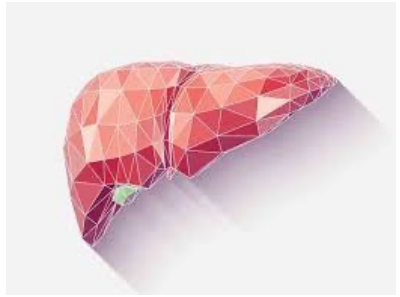
Sensitivität:	0.97
Spezifität:	1.0
PPV:	1.0
NPV:	0.88



Investigational trials

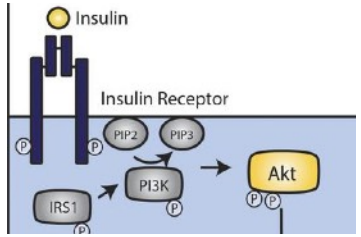


Glucagon-analoga



Muskel, Fettgewebe, Leber

IR-Antikörper



OTTO VON GUERICKE UNIVERSITÄT MAGDEBURG | MED MEDIZINISCHE FAKULTÄT | Mitteldeutsches Kompetenznetz Seltene Erkrankungen | CHI CENTER OF EXCELLENCE | European Reference Network for rare or low prevalence complex diseases | Network Endocrine Conditions (Endo-ERN)

K. Mohnike
M. Zenker
S. Empting
I. Wieland
B. Neumann
K. Palm

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