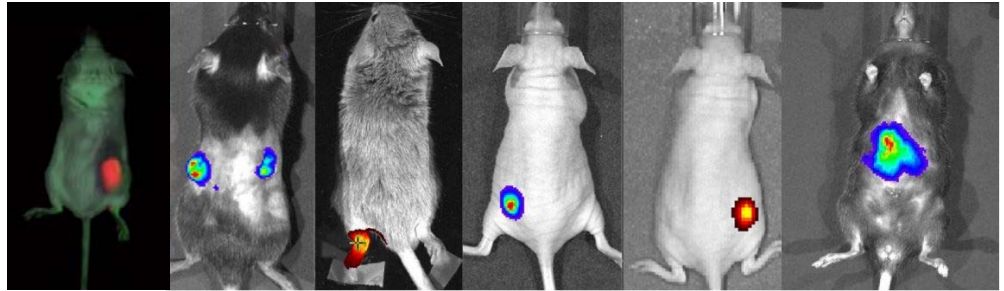




Zurich Integrative Rodent Physiology (ZIRP) preclinical imaging platform

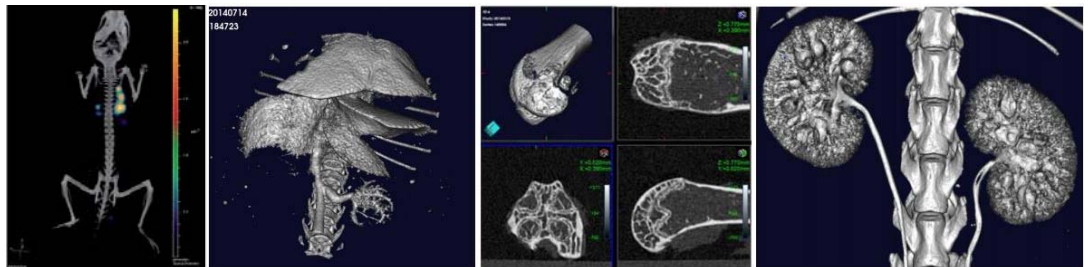
Petra Seebeck, Felix Gantenbein, Lubor Borsig, Zurich Integrative Rodent Physiology, University of Zurich

optical imaging



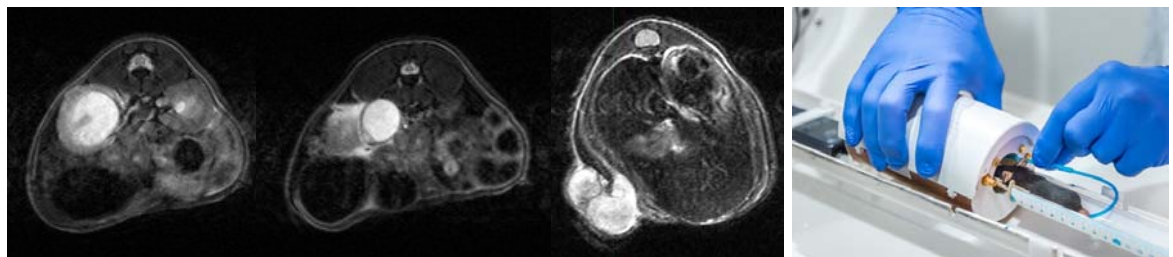
Visualization of subcutaneous tumor vascularization with a targeted fluorescent agent, kidney tumors (bioluminescence), imaging of inflammation during arthritis with a targeted fluorescent agent, subcutaneous tumors with bioluminescence and targeted fluorescent agent, liver tumor (bioluminescence) (from left to right)

micro CT



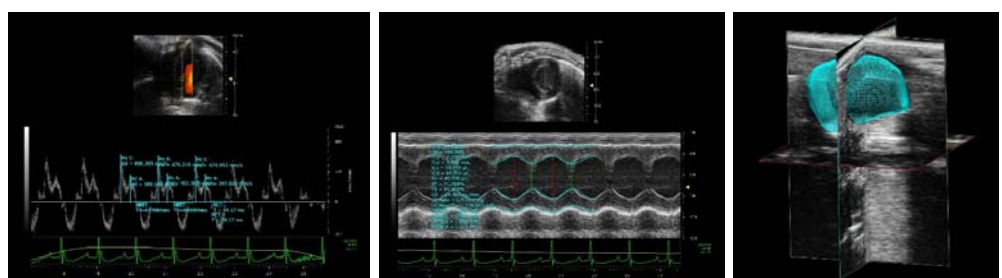
3D Bioluminescence imaging of a mouse lung tumor with co-registration of micro CT data of the skeleton, visualization of a mouse liver and abdominal vessels with blood pool contrast agent, scan of mouse distal femur for bone quality analysis, mouse kidneys with small cysts after injection of contrast agent (from left to right)

MRI



Transverse MR images of mouse abdomina: kidney pelvis with compressed kidney parenchyma and dilated ureter one week after unilateral ureter ligation. Transverse image of mouse with subcutaneous tumor: MRI even allows to differentiate between tumor compartments, mouse ready for imaging in MRT bed (from left to right).

preclinical ultrasound



Mouse echocardiography with pulsed-wave Doppler (PWD) of MV-flow (mitral valve, left) & short axis M-mode of the left ventricle (middle) and 3D-reconstruction and volumetric measurement of a mouse urinary bladder (right).