		cardiovascular	dermal	gastrointestinal	hepatic, pancreatic, biliary	lymphatic	mammary	musculoskeletal	neural	ocular	oral	reproductive	respiratory	urinary	other	
		OoC organoid	OoC organoid	OoC organoid	OoC organoid	OoC organoid	organoid	OoC	OoC organoid	OoC organoid	OoC organoid	OoC organoid	OoC organoid	OoC organoid	OoC organoid	
research interests	organ development tumor disease drug development drug delivery pharmaco–kinetics/dynamics pharmacogenomics toxicology electrophysiology mechanobiology high–throughput screening				•••		•				• • •	• • •				
major research organism	ethics human mouse	•••	00	:8	•••		•		•••	• •	• •	• •	••	• • •		
cell source	stem cell induced pluripotent stem cell embryonic stem cell adult stem cell progenitor cell tissue pluripotent stem cell adult cell tumor cell			• • • • • • • • • • • • • • • • • • • •			•		• • • • • • • • • • • • • • • • • • • •	•	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•	•	•	
neurological disease	ADHD epilepsy Guillain–Barre syndrome hypertonia Leigh syndrome traumatic brain injury								•							
neurodegenerative disorder	neurodegenerative disorder Alzheimer's disease Huntington's disease Parkinson's disease motor neuron disease	:		:	:				• • •	•					• • •	
mental disorder	mental disorder attentione deficit autism spectrum bipolar disorders schizophrenia			•					• 0						•	
eye disease	macular degeneration amaurosis glaucoma retinal degenerative disease retinal dystrophy retinitis pigmentosa			•						• • • • • • • • • • • • • • • • • • • •						
respiratory disease	stargardt disease acute respiratory distress syndrome chronic obstructive pulmonary disease pulmonary hypertension pulmonary vascular disease respiratory distress emphysema asthma			•									• • •		•	
cardiovascular disease	aneurysm arrhythmia atherosclerosis congenital heart disease single ventricle endocarditis hemolytic uremic syndrome hypoplastic left heart syndrome ischemia		•	•	:			•	•					• •	•	
	Long QT syndrome sickle cell disease thrombosis extravasation heart failure	•						•					:		• •	
gastrointestinal disease	gastroesophageal reflux disease gastroenteritis gastritis enterocolitis enteritis colitis inflammatory bowel disease ulcerative colitis Crohn's disease coeliac disease microvillous inclusion disease							:	•				· ·		•	
	mucositis irritable bowel syndrome short bowel syndrome diarrhea Barrett's esophagus diabetes	••		• • •	••			• •	• •					• •	•	
hepatic or pancreatic disease	cholestasis cirrhosis hepattoxicity fatty liver disease hepatitis acute liver failure cholangitis			•	• • •										• •	
kidney disease	chronic kidney disease end-stage renal disease nephrotoxicity polycystic kidney disease acute kidney injury												• •	• •	• •	Publication counts  10 100
fibrosis	fibrosis cystic fibrosis idiopathic pulmonary fibrosis Alagille syndrome Alport syndrome Charcot-Marie-Tooth			•	•								• •		•	<ul><li>1000</li><li>Publication trends</li></ul>
genetic disorder	Chartot-walter-Touling ciliopathy Dravet syndrome Friedreich's ataxia fragile X syndrome Hermansky-Pudlak syndrome Hisrochsprung's disease Lynch syndrome lysosomal storage disease microcephaly Niemann-Pick disease Nijmegen breakage syndrome primary ciliary dyskinesia progeria Down syndrome			•					•				•		:	<ul><li>high</li><li>moderate</li><li>low</li></ul>
	Rett syndrome Usher syndrome Wilson's disease arthritis osteoarthritis				•			::	•	•					•	
other disease	muscular dystrophy autoimmune disease atresia callus dystrophy endometriosis graft-versus-host disease helminthiasis hyperplasia		•	•	•	•	•	.:	•	•		• •	• •	•	• •	
	hypoxia reperfusion injury injury radiation injury radiation injury refractory disease metaplasia obesity polyposis pre-eclampsia prion	•••	•		•••			•••	• •	•	•	••	• • •	• •	• • • • • • • • • • • • • • • • • • • •	
	psoriasis sclerosis thyroid–associated orbitopathy ulcer sepsis	• •	•	•	•				••				•	• •	• •	
viral disease	coronavirus Zika virus astrovirus enterovirus flavivirus norovirus	••	•		•	•			• •	:	•	•	•	•		
	rotavirus dengue influenza HIV HPV host-microbe interactions	•		•		•••			• •			•	• •		•	
symbionts and pathogens	probiotics Chlamydia Citrobacter Escherichia coli Lactobacillus Helicobacter pylori			• •		•						:		• •	• •	
-,,and and patitogens	Clostridioides difficile Salmonella Staphylococcus tuberculosis Cryptosporidium malaria nematode Toxoplasma	•	••	•					•				:.		•	
clinical interests	biobank clinical study preclinical model personalized medicine homeostasis regeneration	• • • • • • • • • • • • • • • • • • •	• •	• • • • • • • • • • • • • • • • • • • •	• • •		•	• • • • • • • • • • • • • • • • • • • •	• •	•	• •	•	• •	• •	• • • • • • • • • • • • • • • • • • • •	
	transplantation cell therapy drug therapy gene therapy gene therapy photodynamic therapy photothermal therapy replacement therapy targeted therapy						•		•	• • •		•	•			
	patient-derived material patient-derived xenograft patient-derived organoid patient-derived tumor organoid monkey	••	•	••	•	•	•	• •	• •	•			• •	• •	• • • • • • • • • • • • • • • • • • • •	
minor research organism	ape dog cat cattle pig horse sheep rabbit bat bird snake			•	•			•	•		•	•	·. :	•		
	fish fish fly frog plant			•	•					•			•		• •	