Prof. Dr. Steven Dooley



Universitätsprofessor und Leiter der Sektion für Molekulare Hepatologie und alkoholassoziierte Erkrankungen – Medizinische Fakultät Mannheim

C-TIP-HCC Koordinator

Rolle in LiSyM-Krebs

- Koordinator und Projektleiter in C-TIP-HCC
- Zelluläre Prozesse, die in der Leber als Reaktion auf eine Schädigung, z. B. durch Alkoholmissbrauch oder Mangelernährung, ablaufen, insbesondere die Rolle von Mitgliedern der TGFβ-Familie, die Regulatoren ihrer Signalwege und Zielgene.

Expertise

- Leberzellbiologie, Lebererkrankungen, klinische Umsetzung und Systembiologie
- Generierung quantitativer Daten mit modernsten Technologien, z. B. Laser-Scanning-Mikroskopie, quantitative 2D/3D-Bildgebung, GeoMx-Bildgebung und räumliches RNA-Profiling, Leberzellen von Mensch und Maus, Zeitrafferdatenüberwachung
- Mausreporter und Krankheitsmodelle

Abschlüsse

- Promotion am Institut für Humangenetik, Universität des Saarlandes in Homburg
- Studiums der Biologie an der Universität in Kaiserslautern

Berufserfahrung

- Seit 2004, ordentlicher Professor an der Universität Heidelberg
- 1998, Gruppenleiter und Assistenzprofessor in der Abteilung für Klinische Chemie und Pathobiochemie an der Uniklinik RWTH Aachen
- Postdoc Forschung auf dem Gebiet der molekularen Krebsforschung am Institut für Humangenetik der Universität Kaiserslautern

Ehrungen und Auszeichnungen (Auswahl)

- Gábor-Szász-Award der Deutschne Vereinten Gesellschaft für Klinische Chemie und Laboratoriums-Medizin für herausragende wissenschaftliche Verdienste

Publikationen

2026-06-10	Transient suppression of the ECM1 gatekeeper is essential for HGF/c-MET-driven liver regeneration
2026-06-07	DNMT mRNA stability and YB-1 cooperatively regulate ABCB1 to drive cisplatin chemoresistance in cholangiocarcinoma
2026-04-29	Phosphatidylserine-Dependent Clearance of Damaged Red Blood Cells by Liver Sinusoidal Endothelial Cells in Alcohol-Related Liver Disease *Biology*
2026-03-14	Semi-automated isolation of parenchymal and non-parenchymal liver cells from mice and humans with enhanced stellate cell fraction *Cell & Bioscience*
2025-12-01	Immunoglobulin G binding as a quantitative marker of hepatocellular death across acute and chronic liver injury
2025-12-01	NADPH oxidase 1/4 dual inhibition impairs transforming growth factor-beta protumorigenic effects in cholangiocarcinoma cancer-associated fibroblasts *Signal Transduction and Targeted Therapy*
2025-10-01	Transforming Growth Factor-β Signaling in Alcohol-Associated Liver Disease *The American Journal of Pathology*
2025-09-01	From cirrhosis to cancer: α-SMA+ CAF and CD68+ macrophage rewiring in the cirrhosis–HCC transition *79. Jahrestagung der DGVS mit Sektion Endoskopie Jahrestagung der Deutschen Gesellschaft für Allgemein- und Viszeralchirurgie mit den Arbeitsgemeinschaften der DGAV und Jahrestagung der CACP*
2025-08-02	The interplay between biomechanics and cell kinetics explains the spatial pattern in liver fibrosis
2025-07-17	ECM1 expression in chronic liver disease: Regulation by EGF/STAT1 and IFNgamma/NRF2 signalling. *JHEP Rep*
2025-06-07	Regulation of essential hepatocyte functions and identity by super-enhancers in health and disease
2025-06-05	TGF-β serves as a critical signaling determinant of liver progenitor cell fate and function
2025-02-06	ECM1 attenuates hepatic fibrosis by interfering with mediators of latent TGF-beta1 activation. *Gut*
2025-01-01	TGF-β critically determines the activation state of both, the macrophage subpopulation that is particularly recruited in the context of MASH progression, as well as of TAMs *41. Jahrestagung der Deutschen Arbeitsgemeinschaft zum Studium der Leber*
2024-11-05	The TGF-beta1 target WISP1 is highly expressed in liver cirrhosis and cirrhotic HCC microenvironment and involved in pro- and anti-tumorigenic effects. *Biochem Biophys Res Commun*
2024-09-29	Role of WISP1 in Stellate Cell Migration and Liver Fibrosis *Cells*
2024-09-09	Direct Ingestion of Oxidized Red Blood Cells (Efferocytosis) by Hepatocytes. *Hepat Med*
2024-08-23	A digital liver twin demonstrating the interplay between biomechanics and cell kinetics can explain fibrotic scar formation

2024-08-01	Retinoic acid generates a beneficial microenvironment for liver progenitor cell activation in acute liver failure.	*Hepatol Commun*
2024-07-13	Tumour-specific activation of a tumour-blood transport improves the diagnostic accuracy of blood tumour markers in mice.	*EBioMedicine*
2024-03-01	ERRγ-inducible FGF23 promotes alcoholic liver injury through enhancing CYP2E1 mediated hepatic oxidative stress	*Redox Biology*
2024-02-16	A liver digital twin for in silico testing of cellular and inter-cellular mechanisms in regeneration after drug-induced damage.	*iScience*
2024-02-08	TGFβR1 inhibition drives hepatocellular carcinoma proliferation through induction of toll-like-receptor signalling	*International Journal of Experimental Pathology*
2024-01-01	Progression of MASLD goes along with significant changes of a recruited and TGFb sensitive macrophage population	*Zeitschrift für Gastroenterologie*
2024-01-01	Insulin Determines Transforming Growth Factor β Effects on Hepatocyte Nuclear Factor 4α Transcription in Hepatocytes	*The American Journal of Pathology*
2024-01-01	The Interplay of TGF-β1 and Cholesterol Orchestrating Hepatocyte Cell Fate, EMT, and Signals for HSC Activation	*Cellular and Molecular Gastroenterology and Hepatology*
2023-12-12	Extracellular Matrix Protein 1 Attenuates Hepatic Fibrosis by Inhibiting TSP-, ADAMTS-, and MMP-Mediated Latent TGF-β1 Activation	
2023-12-07	Rapid dexamethasone treatment inhibits LPS-induced cytokine storm in mice	
2023-08-01	GPNMB induces hepatic steatogenesis and modulates liver cancer cells	*Zeitschrift für Gastroenterologie*
2023-07-01	Tolerance of repeated toxic injuries of murine livers is associated with steatosis and inflammation	*Cell Death & Disease*
2023-05-01	Acute liver injury induces expression of FGF23 in hepatocytes via orphan nuclear receptor ERRγ signaling	*Genes & Diseases*
2023-04-01	Capsaicin receptor TRPV1 maintains quiescence of hepatic stellate cells in the liver via recruitment of SARM1	*Journal of Hepatology*
2023-01-01	Repeated toxic injuries of murine liver are tolerated through minute steatosis and mild inflammation	*39. Jahrestagung der Deutschen Arbeitsgemeinschaft zum Studium der Leber*
2023-01-01	Monitoring TGF-β1 effects on liver cells in vivo	*39. Jahrestagung der Deutschen Arbeitsgemeinschaft zum Studium der Leber*

2023-01-01	Hepatocytes reprogram liver macrophages involving control of TGF-β activation, influencing liver regeneration and injury	*Hepatology Communications*
2022-07-09	Serum Glial Cell Line-Derived Neurotrophic Factor (sGDNF) Is a Novel Biomarker in Predicting Cirrhosis in Patients with Chronic Hepatitis B	*Canadian Journal of Gastroenterology and Hepatology*
2022-04-20	FOXA2 prevents hyperbilirubinaemia in acute liver failure by maintaining apical MRP2 expression	*Gut*
2022-03-07	A hierarchical regulatory network ensures stable albumin transcription under various pathophysiological conditions	*Hepatology*
2022-02-01	Transforming growth factor β latency: A mechanism of cytokine storage and signalling regulation in liver homeostasis and disease	*JHEP Reports*
2022-01-18	Liver specific, systemic and genetic contributors to alcohol-related liver disease progression	*Zeitschrift für Gastroenterologie*
2022-01-18	Inflammation in alcohol-associated liver disease progression	*Zeitschrift für Gastroenterologie*
2022-01-01	Multi-omics profiling identifies molecular signatures of acute-on-chronic liver failure in Abcb4KO mice upon chemical intoxication	*38. Jahrestagung der Deutsche Arbeitsgemeinschaft zum Studium der Leber*
2022-01-01	Insulin-controlled C/EBPα expression determines the impact of TGF-β on HNF4α transcription in hepatocytes	*38. Jahrestagung der Deutsche Arbeitsgemeinschaft zum Studium der Leber*
2022-01-01	FOXA2 inhibits hyperbilirubinemia through maintaining apical MRP2 expression in acute liver failure	*38. Jahrestagung der Deutsche Arbeitsgemeinschaft zum Studium der Leber*
2022-01-01	Downregulation of ECM1 in hepatocytes as a damage response to liver injury	*38. Jahrestagung der Deutsche Arbeitsgemeinschaft zum Studium der Leber*
2022-01-01	Cold shock protein YB-1 upregulates MDR1 transcription and thus contributes to cholangiocarcinoma chemoresistance to cisplatin	*38. Jahrestagung der Deutsche Arbeitsgemeinschaft zum Studium der Leber*
2021-12-14	Follistatin-controlled activin-HNF4α-coagulation factor axis in liver progenitor cells determines outcome of acute liver failure	*Hepatology*
2021-12-14	Follistatin-controlled activin-HNF4α-coagulation factor axis in liver progenitor cells determines outcome of acute liver failure	*Hepatology*
2021-12-03	Mesenchymal stromal cells mitigate liver damage after extended resection in the pig by modulating thrombospondin-1/TGF-β	*npj Regenerative Medicine*
2021-10-14	MicroRNA-124 Alleviates Retinal Vasoregression via Regulating Microglial Polarization	*International Journal of Molecular Sciences*