

Vallier, Ludovic, Prof., PhD (A03)

Personal Data

Title	Prof., PhD
First name	Ludovic
Name	Vallier
Current position	Einstein Professor of Stem Cells in Regenerative Therapies (W3), Max Plank Fellow; permanent position
Current institution(s)/site(s), country	Berlin Institute of Health, Centre for Regenerative Therapies, (BCRT) Charité – Universitätsmedizin Berlin, Campus Virchow-Klinikum (CVK), Augustenburger Platz 1, 13353 Berlin, Germany; Max Planck Institute for Molecular Genetics (MPI-MG)
Identifiers/ORCID	ORCID-ID: 0000-0002-3848-2602

Qualifications and Career

Stages	Periods and Details
Degree programme: Cell Biology	1997 – 2001, Ecole Normale Supérieure de Lyon (ENS Lyon), France
Doctorate: PhD thesis	21.04.2001: Supervisor: Pierre Savatier “ <i>Inducible system in Pluripotent Stem Cell</i> ”, Laboratory of Jacques Samarut, Ecole Normale Supérieure de Lyon (ENS Lyon), France
Stages of academic / professional career	
2022	Einstein Professor of Stem Cells in Regenerative Therapies (W3), BCRT
2022	Max Plank Fellow, MPI-MG
2009 – 2022	Director of the NIHR Cambridge BRC hiPSCs core facility, University of Cambridge, UK
2019 – 2022	Co-Deputy Director, Cambridge Stem Cell institute, UK
2016 – 2022	Member executive committee of the Cambridge Stem Cell Institute, UK
2016 – 2021	Theme Leader NIHR Cambridge BRC Transplantation and Regenerative Medicine, UK
2015	Professor of Regenerative Medicine, University of Cambridge, UK
2012 – 2019	Acting Director, Anne McLaren laboratory, Cambridge, UK
2008	Principal Investigator Cambridge Stem Cell Institute, Dept of Surgery, University of Cambridge, UK
2005	MRC/Diabetes UK Career Development Fellow, Dept of Surgery, University of Cambridge, UK
2002	Research Associate, Dept of Surgery, University of Cambridge, UK

Engagement in the Research System

- Editorial board: Stem Cells, Stem Journal, Stem Cells Reports (Associated Editor) and Gastroenterology, Nat Rev Gastroenterol Hepatol
- Walter-Siegenthaler-Society, Congress President, Cologne, Germany (2024)
- Visiting Chair Edinburgh University (2012 – 2016)
- Memberships International Society for Stem Cells Research, French Society for Stem Cells Research, European Association for Liver Disease and German Stem Cell Network
- Invited ad-hoc manuscript reviewer: Nature, Cell Stem Cell, Nat Biotechnol, Stem Cell Rep, Nat Cell Biol, Hepatology, J Hepatol, Development, E-Life, EMBO J, Gut, Gastroenterology, Hepatology, Nature Cell Biol, Nat Protoc, Nat Methods, Nat Comm
- Invited ad-hoc grant reviewer: BHF (UK), MRC (UK), BBSRC (UK), NC3Rs (UK), Wellcome (UK), Isaac Newton Trust (UK), ANR (France), AERES (France), AFM (France), ERC (EU), I-STEM (India), Israel Science Foundation (Israel), Research Council of Norway (Norway), Fundação para a Ciência e a Tecnologia (Portugal), Swiss National Science Foundation (Switzerland), Fund for Scientific Research-FNRS (Belgium), Qatar Biomedical Research Institute (Qatar), Canada Foundation for Innovation (Canada), Ontario Institute for Regenerative Medicine (Canada), California Institute for Regenerative Medicine (US) and NIH (US)

Scientific Results

Category A, * contributed equally and corresponding author, # open access

1. Brevini T, Maes M, Webb GJ, John BV, Fuchs CD, Buescher G, Wang L, Griffiths C, Brown ML, Scott WE 3rd, Pereyra-Gerber P, Gelson WTH, Brown S, Dillon S, Muraro D, Sharp J, Neary M, Box H, Tatham L, Stewart J, Curley P, Pertinez H, Forrest S, Mlcochova P, Varankar SS, Darvish-Damavandi M, Mulcahy VL, Kuc RE, Williams TL, Heslop JA, Rossetti D, Tysoe OC, Galanakis V, Vila-Gonzalez M, Crozier TWM, Bargehr J, Sinha S, Upponi SS, Fear C, Swift L, Saeb-Parsy K, Davies SE, Wester A, Hagström H, Melum E, Clements D, Humphreys P, Herriott J, Kijak E, Cox H, Bramwell C, Valentijn A, Illingworth CJR; UK-PBC research consortium; Dahman B, Bastaich DR, Ferreira RD, Marjot T, Barnes E, Moon AM, Barritt AS 4th, Gupta RK, Baker S, Davenport AP, Corbett G, Gorgoulis VG, Buczacki SJA, Lee JH, Matheson NJ, Trauner M, Fisher AJ, Gibbs P, Butler AJ, Watson CJE, Mells GF, Dougan G, Owen A, Lohse AW, **Vallier L***, Sampaziotis F*. FXR inhibition may protect from SARS-CoV-2 infection by reducing ACE2. **Nature** 2023; 615(7950):134-142. doi: 10.1038/s41586-022-05594-0. #
2. Wesley BT, Ross ADB, Muraro D, Miao Z, Saxton S, Tomaz RA, Morell CM, Ridley K, Zacharis ED, Petrus-Reurer S, Kraiczy J, Mahbubani KT, Brown S, Garcia-Bernardo J, Alsinet C, Gaffney D, Horsfall D, Tysoe OC, Botting RA, Stephenson E, Popescu DM, MacParland S, Bader G, McGilvray ID, Ortmann D, Sampaziotis F, Saeb-Parsy K, Haniffa M, Stevens KR, Zilbauer M, Teichmann SA, **Vallier L**. Single-cell atlas of human liver development reveals pathways directing hepatic cell fates. **Nat Cell Biol** 2022; 24(10):1487-1498. doi: 10.1038/s41556-022-00989-7.
3. Sampaziotis F, Muraro D, Tysoe OC, Sawiak S, Beach TE, Godfrey EM, Upponi SS, Brevini T, Wesley BT, Garcia-Bernardo J, Mahbubani K, Canu G, Gieseck R 3rd, Berntsen NL, Mulcahy VL, Crick K, Fear C, Robinson S, Swift L, Gambardella L, Bargehr J, Ortmann

- D, Brown SE, Osnato A, Murphy MP, Corbett G, Gelson WTH, Mells GF, Humphreys P, Davies SE, Amin I, Gibbs P, Sinha S, Teichmann SA, Butler AJ, See TC, Melum E, Watson CJE, Saeb-Parsy K*, **Vallier L***. Cholangiocyte organoids can repair bile ducts after transplantation in the human liver. **Science** 2021; 371(6531):839-846. doi: 10.1126/science.aaz6964. #
4. Tilson SG, Morell CM, Lenaerts AS, Park SB, Hu Z, Jenkins B, Koulman A, Liang TJ*, **Vallier L***. Modeling PNPLA3-Associated NAFLD Using Human-Induced Pluripotent Stem Cells. **Hepatology** 2021; 74(6):2998-3017. doi: 10.1002/hep.32063
 5. Rimland CA, Tilson SG, Morell CM, Tomaz RA, Lu WY, Adams SE, Georgakopoulos N, Otaizo-Carrasquero F, Myers TG, Ferdinand JR, Gieseck RL 3rd, Sampaziotis F, Tysoe OC, Wesley B, Muraro D, Oniscu GC, Hannan NR, Forbes SJ, Saeb-Parsy K, Wynn TA, **Vallier L**. Regional differences in human biliary tissues and corresponding in vitro derived organoids. **Hepatology** 2021; 73(1):247-267. doi: 10.1002/hep.31252. #
 6. Bertero A, Brown S, Madrigal P, Osnato A, Ortmann D, Yiangou L, Kadiwala J, Hubner NC, de Los Mozos IR, Sadée C, Lenaerts AS, Nakanoh S, Grandy R, Farnell E, Ule J, Stunnenberg HG, Mendjan S, **Vallier L**. The SMAD2/3 interactome reveals that TGF β controls m6A mRNA methylation in pluripotency. **Nature** 2018; 555(7695):256-259. doi: 10.1038/nature25784. #
 7. Segeritz CP, Rashid ST, Cardoso de Brito M, Paola MS, Ordonez A, Morell CM, Kaserman JE, Madrigal P, Hannan N, Gatto L, Tan L, Wilson AA, Lilley K, Marciniak SJ, Gooptu B, Lomas DA*, **Vallier L***. hiPSC hepatocyte model demonstrates the role of unfolded protein response and inflammatory networks in α_1 -antitrypsin deficiency. **J Hepatol** 2018; 69(4):851-860. doi: 10.1016/j.jhep.2018.05.028. #
 8. Sampaziotis F, Justin AW, Tysoe OC, Sawiak S, Godfrey EM, Upponi SS, Gieseck RL 3rd, de Brito MC, Berntsen NL, Gómez-Vázquez MJ, Ortmann D, Yiangou L, Ross A, Bargehr J, Bertero A, Zonneveld MCF, Pedersen MT, Pawlowski M, Valestrand L, Madrigal P, Georgakopoulos N, Pirmadjid N, Skeldon GM, Casey J, Shu W, Materek PM, Snijders KE, Brown SE, Rimland CA, Simonic I, Davies SE, Jensen KB, Zilbauer M, Gelson WTH, Alexander GJ, Sinha S, Hannan NRF, Wynn TA, Karlsen TH, Melum E, Markaki AE, Saeb-Parsy K*, **Vallier L***. Reconstruction of the mouse extrahepatic biliary tree using primary human extrahepatic cholangiocyte organoids. **Nat Med** 2017; 23(8):954-963. doi: 10.1038/nm.4360. #
 9. Sampaziotis F, Cardoso de Brito M, Madrigal P, Bertero A, Saeb-Parsy K, Soares FAC, Schrupf E, Melum E, Karlsen TH, Bradley JA, Gelson WTH, Davies S, Baker A, Kaser A, Alexander GJ, Hannan NRF*, **Vallier L***. Human Induced Pluripotent Stem Cell derived cholangiocytes for disease modeling and drug validation. **Nat Biotechnol** 2015; 33(8):845-852. doi: 10.1038/nbt.3275. #
 10. Yusa K*, Rashid ST*, Strick-Marchand H, Varela I, Liu PQ, Paschon DE, Miranda E, Ordóñez A, Hannan N, Rouhani FJ, Darche S, Alexander G, Marciniak SJ, Fusaki N, Hasegawa M, Holmes MC, Di Santo JP, Lomas DA*, Bradley A*, **Vallier L***. Targeted gene correction of α_1 -antitrypsin deficiency in induced pluripotent stem cells. **Nature** 2011; 478(7369):391-4. doi: 10.1038/nature10424. #

Academic Distinctions

- Fellow of the Academy of Medical Sciences
- Fellow St Edmunds College, Cambridge (2018 – 2022)
- Visiting Chair Edinburgh University (2012 – 2016)
- NC3Rs Prize (2011)
- MRC senior fellowship award (2008)
- MRC career development award (2005)

Collaborators

No.	Collaboration partners	Location/Institution
1	Kelly Stevens	Seattle, USA, University of Washington
2	Kouros Saeb-Parsy	Cambridge, UK, University of Cambridge
3	Georg Duda	Berlin, Germany, BCRT
4	Alexander Meissner	Berlin, Germany, MPI-MG
5	Michael Alison	Cambridge, UK, Addenbrooke's hospital
6	Irina Mohorianu	Cambridge, UK, University of Cambridge
7	Frank Tacke	Berlin, Germany, Charité – Universitätsmedizin Berlin
8	Igor Sauer	Berlin, Germany, Charité – Universitätsmedizin Berlin