

Profile

Innovative and results-driven stem cell researcher with a strong track record of leading complex projects within tight timelines and budgets. Proven success in hypothesis-driven research, grant acquisition, and multidisciplinary collaboration. Skilled in managing diverse teams, budgets, and project risks. Dedicated to advancing scientific knowledge with a commitment to equity, inclusion, and excellence.

Research Experience

Jan 2025 – Present Senior Stem Cell Research Fellow, UCL

Leading the effort to develop cell-based therapies to treat liver disease supported by two grants from GOSH Charity and Focused Ultrasound Foundation

Apr 2023 – Feb 2025 Catalyst Fellow, UCL

Leading the effort to develop cell-based therapies to treat liver disease supported by a Fellowship from NIHR Great Ormond Street Biomedical Research Centre

Apr 2021 – Aug 2023 Senior Research Fellow, UCL

Developed an ectopic hepatic patch supported by Awards from GOSH Charity and Sparks National Call and the Children's Liver Disease Foundation.

Apr 2018 – Feb 2021 Senior Research Fellow, UCL

Developed a novel platform to generate retinal organoids at scale and using animal-free supplements for the first time.

Established reprogramming platform to generate and characterise induced pluripotency stem cells.

Oct 2014 – Sep 2017 Postdoctoral Research Fellow, University of Edinburgh

Developed a new protocol to generate human pluripotent stem cell-derived 3D hepatocytes (patented) Formulated a new culture medium to stabilise 3D Hepatospheres functions to over a year in culture.

Apr 2011 – Sep 2014 Postdoctoral Research Fellow, University of Nottingham

Involved in fabrication of growth factor-loaded microparticles to treat large bone defects.

Developed a chick embryonic femur culture system to assess the localised effect of released growth factors from manufactured microparticles.

Research Funding

2025 GOSH Charity £245k, Co-PI

2025 FUS Foundation \$100k, Co-PI

2023 Catalyst Fellowship £128k

2021 Rosetrees Trust Seedcorn Award £10k, PI

2020 GOSH Charity & Sparks National Call £100k, PI

2020 UCL Regenerative Medicine Pilot Data £16k, PI

2019 Children's Liver Disease Foundation £10k, PI

2018 NC3Rs CRACK-IT Challenge £100k, Co-PI

Education

2007 – 2010 PhD Stem Cell Biology

University of Nottingham, United Kingdom
(Supervisor Dr Virginie Sottile)

2006 – 2007 MRes Regenerative Medicine

University of Bath, United Kingdom (*cum laude*)

2003 – 2005 MSc Biology

University of Leiden, The Netherlands (*cum laude*)

2000 – 2002 BSc Medical Laboratory Science

Medical University of Kerman, (*summa cum laude*)

Publications

DOI: 10.1093/ibd/ibaa125 "Methods for producing Hepatocytes"

Shahmoradian L., Gunnar C., Ericsson J., Cameron K., Hay D. C., Forbes S., Rashidi H.

Contact

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Teaching Experience

- 20-5 Lake Como Virtual School of Science
Delivered a virtual lecture on "3D Culture Systems and Alternative *in vitro* Models"
- 20 UCL, Cell and Gene Therapy MSc Course
Delivered a lecture on "Pluripotent Stem Cells and Reprogramming"
- 14 University of Nottingham, Stem Cell Technology MSc Course
Delivered a lecture on "Endoderm Development"
- 12 University of Nottingham, Stem Cell Technology MSc Course
Delivered a lecture on "Endoderm Development"
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Supervised Research Projects

- 24 MSc, Main Supervisor
Liver organoid as a model to assess drug-induced liver injury
- 21 PhD, Second Supervisor
Development of an *in vitro* model to study the effect of MYO7A mutation in Usher Type I patients using human pluripotent stem cell-derived Retinal Pigment Epithelium (RPE) cells.
- 20 MSc, Main Supervisor
Role of Laminin isoforms in retinal differentiation
- 12 MSc, Main Supervisor
Development of a chick embryonic femur *ex ovo* culture as a tool to evaluate the efficacy of growth factor loaded microparticles for bone tissue engineering.
- 10 MSc, Second Supervisor
Inference in the Pattern and Regulation of Mineral Deposition in Human cell Lines of Osteogenic and Neurogenic Origin.
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Personal Scholarship

- 07 Overseas Research Studentship (University of Nottingham, UK, £60k)
- 06 International Scholarship (University of Bath, UK, £2k)
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Travel Grants/Awards

- 24 Best Poster Presentation, Regenerative Hepatology Symposium (EASL), €150
- 17 Travel Grant, European Association for the Study of the Liver (EASL), €500
- 17 Travel Grant, European Society of Toxicology, €250
- 12 Travel Grant, 7th International Avian Model Systems Conference, £800
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Selected Publications

So far, I have one patent and published over 60 research articles, pre-prints, review papers, conference proceedings and book chapters with over 1850 citations and h-index of 19 on Google Scholar.

Hassan Rashidi, Amjad Khalil, Saeid Froghi, Andrew Hall, Pierre Gelat, Brian Davidson, Alberto Quaglia, Nader Saffari. **The safety and efficacy of ultrasound histotripsy and human pluripotent stem cell-derived hepatic spheroid implantation as a potential therapy for treatment of congenital metabolic liver disease: Assessment in an immunocompetent rodent model.** *Cell Transplantation*. 2025;34. DOI: [10.1177/09636897251342462](https://doi.org/10.1177/09636897251342462)

Saqlain Suleman, Sharmin Alhaque, Andrew Guo, Aaron Zhang, Serena Fawaz, Stefany Perera, Mohammad Khalifa, Hassan Rashidi, David C Hay, Michael Themis. **Transcriptomic Profiling of iPS Cell-Derived Hepatocyte-like Cells Reveals Their Close Similarity to Primary Liver Hepatocytes.** *Cells*, 2025, 14(12); 9. DOI: [10.3390/cells14120925](https://doi.org/10.3390/cells14120925)

Hassan Rashidi, Helen C Cox, Omar Qutachi, Dale Moulding, Lisa J White, Emma L Smith, Janos M Kanczler, Leticia Rojo, Michael Rotherham, James R Henstock, Molly M Stevens, Alicia J El Haj, Richard OC Orrefo, Kevin Shakesheff, Felicity RAJ Rose. **Localized Delivery of Growth Factors from Microparticles Modulate Osteogenic and Chondrogenic Gene Expression in Growth Factor-dependent Manner in an ex vivo Chick Embryonic chick bone.** *bioRxiv*, 2024.12.05.627026v. DOI: [10.1101/2024.12.05.627026](https://doi.org/10.1101/2024.12.05.627026) (Accepted in *Acta Biomaterialia*)

- Julien Baruteau Claire Duff, Madeha Islam, Onelia Gagliano, Hema Pramod, **Hassan Rashidi**, Manju Kurian Paul Gissen. **Generation of induced pluripotent stem cells(UCLi024-A) from a patient with argininosuccinate lyase deficiency carrying a homozygous c.437G>A (p.Arg146Gln) mutation.** *Stem Cell Research*, 2024, 76 103365. DOI: [10.1016/j.scr.2024.103365](https://doi.org/10.1016/j.scr.2024.103365).
- Saied Froghi, Andrew Hall, Arif Hanafi Bin Jalal, Matheus Oliveira de Andrade, Layla Mohammad Hadi, Hassar Rashidi, Pierre Gélât, Nader Saffari, Brian Davidson, Alberto Quaglia. **Ultrasound Histotripsy on a Viable Perfused Whole Porcine Liver: Histological Aspects, Including 3D Reconstruction of the Histotripsy Site** *Bioengineering* 2023;10(3),278. DOI: [10.3390/bioengineering10030278](https://doi.org/10.3390/bioengineering10030278).
- Saied Froghi, Matheus Oliveira De Andrade, Layla Mohammad Hadi, Pierre Gelat, Hassan Rashidi, Alberto Quaglia, Barry Fuller, Nader Saffari, Brian Davidson. **Liver ultrasound histotripsy: novel analysis of the histotripsy site cell constituents with implications for histotripsy application in cell transplantation and cancer therapy.** *Bioengineering*. 2023;10(2):276. DOI: [10.3390/bioengineering10020276](https://doi.org/10.3390/bioengineering10020276).
- Hassan Rashidi**, Yeh Chwan Leong, Kerrie Venner, Hema Pramod, Qi-Zhen Fei, Owen R Jones, Dale Moulding Jane C Sowden. **Generation of 3D retinal tissue from human pluripotent stem cells using a directed small molecule-based serum-free microwell platform.** *Sci Rep*. 2022;12, 6646, DOI: [10.1038/s41598-022-10540-1](https://doi.org/10.1038/s41598-022-10540-1)
- Hassan Rashidi**, David C. Hay. **Nuclear factor programming improves stem-cell-derived hepatocyte phenotype.** *Cell Stem Cell*, 2022;29, 5, DOI: [10.1016/j.stem.2022.04.009](https://doi.org/10.1016/j.stem.2022.04.009).
- Hassan Rashidi**, David C. Hay. **Serum-Free Production of Three-Dimensional Hepatospheres from Pluripotent Stem Cells.** *Methods Mol Biol*. 2021, DOI: [10.1007/978-1-4939-9430-1_430](https://doi.org/10.1007/978-1-4939-9430-1_430).
- Balta Lucendo-Villarin, **Hassan Rashidi**, Sharmin Alhaque, Lena Fischer, Jose Meseguer-Ripolles, Yu Wang Cliona O'farrelly, Michael Themis, David C Hay. **Serum free production of three-dimensional human hepatospheres from pluripotent stem cells.** *J. Vis. Exp.* 2019; (149), e59965, DOI: [10.3791/59965](https://doi.org/10.3791/59965).
 - **Hassan Rashidi**, Nguyet-Thin Luu, Salamah M Alwahsh, Maaria Ginai, Sharmin Alhaque, Hua Dong, Rute F Tomaz, Bertrand Vernay, Vasanthi Vigneswara, John M Hallett, Anil Chandrashekran, Anil Dhawan, Ludovic Vallier, Mark Bradley, Anthony Callanan, Stuart J Forbes, Philip N Newsome, David C Hay. **3D human live tissue from pluripotent stem cells displays stable phenotype in vitro and supports compromised live function in vivo.** *Arch Toxicol*. 2018; 92(10): 3117–3129, DOI: [10.1007/s00204-018-2280-2](https://doi.org/10.1007/s00204-018-2280-2).
 - Yu Wang, Sharmin Alhaque, Kate Cameron, Jose Meseguer-Ripolles, Baltasar Lucendo-Villarin, **Hassan Rashidi**, David C Hay. **Defined and scalable generation of hepatocyte-like cells from human pluripotent stem cells.** *J. Vis. Exp.*, 2017; e55355, DOI: [10.3791/55355\(2017\)](https://doi.org/10.3791/55355(2017)).
 - **Hassan Rashidi**, Sharmin Alhaque, Dagmara Szkolnicka, Oliver Flint, David Hay. **Fluid shear stress modulation of hepatocyte-like-cell.** *Arch Toxicol*, 2016; 90(7):1757–1761, DOI: [10.1007/s00204-016-1689-8](https://doi.org/10.1007/s00204-016-1689-8).
 - Baltasar Lucendo Villarin, Katherine Cameron, Dagmara Szkolnicka, **Hassan Rashidi**, et al.; **Polymers Supported Directed Differentiation Reveals a Unique Gene Signature Which Predicts Stable Hepatocyte Performance.** *Ad Health Mat*, 2015; 4(12):1820–1825, DOI: [10.1002/adhm.201500391](https://doi.org/10.1002/adhm.201500391).

views

- Hollie F. Moore, Saba Usmani, Saied Froghi, **Hassan Rashidi**, Alberto Quaglia, Barry Fuller, Brian R. Davidson **Immune cells in liver regeneration: Current evidence and potential clinical targets.** *International Reviews of Immunology*, 2025;1–40. DOI: [10.1080/08830185.2025.2531820](https://doi.org/10.1080/08830185.2025.2531820)
- Zahra Heydari, Roberto Gramignoli, Abbas Piryaee, Ensieh Zahmatkesh, Paria Pooyan, Andreas Nussler Mustapha Najimi, Dagmara Szkolnicka, **Hassan Rashidi**, David C. Hay, Massoud Vosough. **Standard Protocol: for Characterising Primary and In Vitro - Generated Human Hepatocytes.** 2025. *J Cell Mol Med*, 29 e70390. DOI: [10.1111/jcmm.70390](https://doi.org/10.1111/jcmm.70390)
- Amjad Khalil, Alberto Quaglia, Pierre Gélât, Nader Saffari, **Hassan Rashidi**, Brian Davidson. **New Developments and Challenges in Liver Transplantation.** *Journal of Clinical Medicine*, 2024, 12 (17), 5586. DOI: [10.3390/jcm12175586](https://doi.org/10.3390/jcm12175586).
- Sharmin Alhaque, Michael Themis, **Hassan Rashidi**; **Three-dimensional cell culture: from evolution to revolution.** *Phil. Trans. R. Soc. B*, 2018; 373:2017 0216. DOI: [10.1098/rstb.2017.0216](https://doi.org/10.1098/rstb.2017.0216).
- Salamah M Alwahsh, **Hassan Rashidi**, David C Hay; **Liver Cell Therapy: is this the end of beginning?** *CMLS* 2017; DOI: [10.1007/s00018-017-2713-8](https://doi.org/10.1007/s00018-017-2713-8).
- Baltasar Lucendo Villarin, **Hassan Rashidi**, et al.; *J Mat Chem B*, 2016; **Pluripotent stem cell- derived hepatocytes: using materials to define cellular differentiation and tissue engineering.** 4(20):3433–3442, DOI: [10.1039/c6tb00331a](https://doi.org/10.1039/c6tb00331a).

- David Gothard, Emma L. Smith., Janos M. Kanczler, **Hassan Rashidi**, et al.; **Tissue engineered bone using selected growth factors: A comprehensive review of animal studies and clinical translational studies in man.** *Euro Cell Mater*, 2014; 28:166-208.
- **Hassan Rashidi**, Jing Yang, Kevin M. Shakesheff.; **Surface Engineering of Synthetic Polymer Materials for Tissue Engineering and Regenerative Medicine Applications.** *Biomater Sci*, 2014; 2(10):1318-1331. [DOI: 10.1039/c3bm60330j](https://doi.org/10.1039/c3bm60330j).

Selected Conference Proceedings

- **Hassan Rashidi et al.**, **Combining renewable human liver tissue and novel extracorporeal devices to deliver mammalian liver support.** EASL 2017.
- **Hassan Rashidi et al.**, **Fluid Shear Stress Modulation of Hepatocyte-like Cell Function.** ISSCR Conference, San Francisco, 2016.

Book Chapters

- **Hassan Rashidi**, Sharmin Alhaque, Nicholas DE Greene, Dominique Bonnet. **Fetal Liver Hematopoiesis and the Crosstalk Between Hematopoietic System and the Liver During Embryonic Development.** Elsevier, 2024.
- **Hassan Rashidi**, DC Hay; **Application of 3D Culture Systems, Biofabrication and Bioprinting in Drug Discovery and Medicine, Stem Cells in Toxicology and Medicine.** Edition: 1, Wiley, 2016.

Invited Presentations

- Keynote speaker at the 10th Advanced Cell and Tissue Culture Conference (Cardiff, UK, 2018)
- A novel three-dimensional model for long-term evaluation of drug toxicity *in vitro*. 53rd Congress of the European Societies of Toxicology (Bratislava, Slovakia, 2017)
- Combining renewable human liver tissue and novel extracorporeal devices to deliver mammalian liver support. The International Liver Congress (Amsterdam, The Netherlands, 2017)
- Combining renewable human liver tissue and novel extracorporeal devices to deliver mammalian liver support. 2nd ICAS (Tehran, Iran, 2017)
- Growth factor-loaded biodegradable microparticles to promote the natural healing process of bone. 7th International Avian Model Systems (Nagoya, Japan, 2012)

Professional Memberships

- International Society of Stem cell Research (ISSCR)
- British Society for Gene and Cell Therapy (BSGCT)
- London Stem Cell Network (LSCN)

Volunteering and Public Engagements

- Fund raising for the Children's Liver Disease Foundation (London, 2020)
- Hosting two In2Science students, UCL Great Ormond Street Institute of Child Health (London, 2019)
- GOSH BRC Family Fun Day, UCL Great Ormond Street Institute of Child Health (London, 2018 & 2019)
- GOSH Research Trail, Great Ormond Street Hospital (London, 2018)
- Royal Society Exhibition (London, July 2013)
- Afterschool Science Club (Nottingham, June 2013)
- Volunteer (Games Maker) at the London Olympics (London, 2012)
- University of Nottingham Showcase Event (Nottingham, 2011)

References

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