**Humane research factsheet references**

. Science NetLinks, The Cells in Your Body.

http://sciencenetlinks.com/student-teacher-sheets/cells-your-body/

(Accessed 19 Nov 2020)

2. Human Tissue Authority, Brain donation.

https://www.hta.gov.uk/guidance-public/brain-donation (Accessed 9 Nov 2020)

3. Human Tissue Authority, FAQs: Donating your tissue for research. https://www.hta.gov.uk/faqs/donating-your-tissue-research#faq13701

(Accessed 9 Nov 2020)

4. Human Tissue Authority, List of materials considered to be ‘relevant material’ under the Human Tissue Act 2004.

https://www.hta.gov.uk/policies/list-materials-considered-be‘relevant-material’-under-human-tissue-act-2004 (Last updated: 28 Mar 2019. Accessed 9 Nov 2020.)

5. The NHS organ and tissue donor schemes include options to donate bone, skin, eyes (cornea), tendons and heart valves, as well as a range of organs. https://www.organdonation.nhs.uk/helping-you-to-decide/about-organ-donation/what-can-you-donate/about-tissue-donation/ (Accessed 9 Nov 2020)

6. Animal Aid, Human Tissue Research. See 'Sources of donated human tissue', para 2. https://www.animalaid.org.uk/the-issues/our-campaigns/animal-experiments/human-tissue-research/ (Accessed 19 Nov 2020)

7. Zink, D., Chuah, J.K.C. and Ying, J.Y., 2020. Assessing Toxicity with Human Cell-Based In Vitro Methods. Trends in Molecular Medicine. https://doi.org/10.1016/j.molmed.2020.01.008 (Accessed 17 Nov 2020)

8. BioIVT, Tissue. https://bioivt.com/tissue-2 (Accessed 19 Nov 2020)

9. Olshansky, S.J. and Hayflick, L., 2017. The role of the WI-38 cell strain in saving lives and reducing morbidity. AIMS public health, 4(2), p.127. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5689800/ [full paper]

(Accessed 23 Nov 2020)

10. Wyss Institute website (2020) Introduction to Organs-on-a-Chip https://wyss.harvard.edu/media-post/introduction-to-organs-on-a-chip/

(Accessed 26 Oct 2020)

1. Stoakes, SF. Reviewed by Dr. Meštrović, T. News Medical website (2018) What is Organ-on-a-Chip (OOC)?

www.news-medical.net/life-sciences/What-is-Organ-on-a-Chip-(OOC).aspx

(Accessed 26 Oct 2020)

2. Wyss Institute website (2020) Human Organs-on-Chips: https://wyss.harvard.edu/technology/human-organs-on-chips/ (Accessed 26 Oct 2020)

3. Organ-on-a-Chip Technologies Network

https://www.organonachip.org.uk/ (Accessed 17 Nov 2020)

14. Du, P. et al., 2016. The virtual intestine: in silico modeling of small intestinal electrophysiology and motility and the applications. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 8(1), pp.69-85. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5097873/ [full paper]

(Accessed 18 Nov 2020)

5. Virtual Physiological Human Institute

https://www.vph-institute.org/ (Accessed: 9 Nov 2020)

6. Passini, E. et al., 2017. Human in silico drug trials demonstrate higher accuracy than animal models in predicting clinical pro-arrhythmic cardiotoxicity. Frontiers in physiology, 8, p.668.

https://doi.org/10.3389/fphys.2017.00668 [full paper] (Accessed 19 Nov 2020)

7. Piñero, J., Furlong, L.I. and Sanz, F., 2018. In silico models in drug development: where we are. Current opinion in pharmacology, 42, pp.111-121. https://www.researchgate.net/profile/Janet\_Pinero3/publication/327603309\_In\_silico\_models\_in\_drug\_development\_where\_we\_are/links/5cc1dcb7299bf120977f71c1/In-silico-models-in-drug-development-where-we-are.pdf [full paper] (Accessed 18 Nov 2020)

8. Benam, K.H. et al., 2019. Exploring new technologies in biomedical research. Drug Discovery Today, 24(6), pp.1242-1247. https://doi.org/10.1016/j.drudis.2019.04.001 [full paper] (Accessed 18 Nov 2020)

9. Lancaster, M.A. et al., 2013. Cerebral organoids model human brain development and microcephaly. Nature, 501(7467), pp.373-379. https://www.nature.com/articles/nature12517 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817409/ [full paper]

(Accessed 20 Nov 2020)

20. King A., 2018. Mini-brains offer hope in search for new drugs for brain disorders, Horizon EU Research and Innovation magazine

https://horizon-magazine.eu/article/mini-brains-offer-hope-search-new-drugs-brain-disorders.html (Accessed 1 Sept 2020)

2. Brain Organoids Offer Clues to Microcephaly, Neuroscience News and Research, March 2020. https://www.technologynetworks.com/neuroscience/news/brain-organoids-offer-clues-to-microcephaly-332776 (Accessed 1 Sept 2020)

22. Langley, G. and Farnaud, S., 2010. Opinion: Microdosing: safer clinical trials and fewer animal tests. Bioanalysis, 2(3), pp.393-395. https://doi.org/10.4155/bio.09.168 [full paper] (Accessed 9 Nov 2020)

23. Burt, T., et al., 2020. Phase 0/microdosing approaches: time for mainstream application in drug development? Nature Reviews Drug Discovery, pp.1-18. https://www.nature.com/articles/s41573-020-0080-x [full paper] (Accessed 17 Nov 2020)

24. ScienceDirect, topics: Microdosing. https://www.sciencedirect.com/topics/pharmacology-toxicology-and-pharmaceutical-science/microdosing (Accessed 19 Nov 2020)

6 January 2021