

Resource Summary Report

Generated by ASWG on Aug 3, 2026

Virtual Human Embryo

RRID:SCR_006921

Type: Tool

Proper Citation

Virtual Human Embryo (RRID:SCR_006921)

Resource Information

URL: <http://virtualhumanembryo.lsuhscl.edu/>

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Description: A digital image database of serially sectioned human embryos from the Carnegie Collection originally developed as a collaboration between embryologist Dr. Raymond Gasser at Louisiana State University Health Science Center (LSUHSC) and the Human Developmental Anatomy Center (HDAC) in Washington D.C. The aim of the project is to increase understanding of human embryology and to encourage study of human embryonic development by providing students and researchers with reliable resources for human embryo morphology. The VHE project has several components: * DREM: The Digitally Reproduced Embryonic Morphology (DREM) project, with funding from NICHD, project has produced 27 image databases of labeled serial sections from representative human embryos at each of the 23 Carnegie stages. These databases, together with animations and reconstructions of the embryos are available on DVD and CD. * HEIRLOOM: The HEIRLOOM Collection (Human Embryo Imaging and Reconstruction, Library Of Online Media) was funded by the National Library of Medicine to provide greater access to the DREM databases. NLM provided funding to set up this website and to produce additional 3D-reconstructions and animations that are included on the DREM disks. Original website, <http://virtualhumanembryo.lsuhscl.edu/HEIRLOOM/heirloom.htm> * EHD: Starting in 2011, The Endowment for Human Development (EHD) will also host the VHE databases. They have made the project accessible to everyone and include a comprehensive cataloging of all the terms used to label the embryos. Their website enables users to browse through the complete VHE atlas of human embryology, <http://www.ehd.org/virtual-human-embryo/>

Abbreviations: VHE

Synonyms: Virtual Human Embryo Project

Resource Type: database, data or information resource, image collection

Keywords: embryo, embryonic human, development, embryology, morphology, carnegie stage, 3d-reconstruction

Funding: NICHD R01 HD37811;
NLM R01 LM007591

Resource Name: Virtual Human Embryo

Resource ID: SCR_006921

Alternate IDs: nlx_152029

Record Creation Time: 20220129T080238+0000

Record Last Update: 20260803T040446+0000

Ratings and Alerts

No rating or validation information has been found for Virtual Human Embryo.

No alerts have been found for Virtual Human Embryo.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 23 mentions in open access literature.

Listed below are recent publications. The full list is available at [ASWG](#) .

Hülsman CJM, et al. (2026) The Development of the Human Female Reproductive Tract. Part 1: Uterine Tube and Uterus. Clinical anatomy (New York, N.Y.), 39(1), 92.

Hülsman CJM, et al. (2025) The development of the external genitals in female human embryos and fetuses. Part 1: Perineal thick skin, clitoris and labia. Journal of anatomy, 246(2), 190.

Aye ILMH, et al. (2025) The human placenta and its role in reproductive outcomes revisited. Physiological reviews, 105(4), 2305.

de Goederen V, et al. (2022) Hinge point emergence in mammalian spinal neurulation. Proceedings of the National Academy of Sciences of the United States of America, 119(20), e2117075119.

Jin ZW, et al. (2022) Topographical relationships of the yolk sac remnant and vitelline vessels with the midgut loop in the extra-embryonic coelom of human embryos. Anatomy & cell biology, 55(3), 356.

Kruepunga N, et al. (2021) Development of the sympathetic trunks in human embryos. *Journal of anatomy*, 239(1), 32.

Schäfer T, et al. (2021) Initial morphological symmetry breaking in the foregut and development of the omental bursa in human embryos. *Journal of anatomy*, 238(4), 1010.

Hyland RM, et al. (2021) Impact of Motile Ciliopathies on Human Development and Clinical Consequences in the Newborn. *Cells*, 11(1).

Kruepunga N, et al. (2020) Development of extrinsic innervation in the abdominal intestines of human embryos. *Journal of anatomy*, 237(4), 655.

Kruepunga N, et al. (2020) Extrinsic innervation of the pelvic organs in the lesser pelvis of human embryos. *Journal of anatomy*, 237(4), 672.

Taniguchi K, et al. (2019) Opening the black box: Stem cell-based modeling of human post-implantation development. *The Journal of cell biology*, 218(2), 410.

de Bakker BS, et al. (2019) The Pronephros; a Fresh Perspective. *Integrative and comparative biology*, 59(1), 29.

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Kruepunga N, et al. (2018) The development of the cloaca in the human embryo. *Journal of anatomy*, 233(6), 724.

Shao Y, et al. (2017) A pluripotent stem cell-based model for post-implantation human amniotic sac development. *Nature communications*, 8(1), 208.

Hikspoors JPJM, et al. (2017) Human liver segments: role of cryptic liver lobes and vascular physiology in the development of liver veins and left-right asymmetry. *Scientific reports*, 7(1), 17109.

Shiraishi N, et al. (2015) Morphology and morphometry of the human embryonic brain: A three-dimensional analysis. *NeuroImage*, 115, 96.

Gasser RF, et al. (2014) Rebirth of human embryology. *Developmental dynamics : an official publication of the American Association of Anatomists*, 243(5), 621.

Burger NB, et al. (2013) Systematic analysis of the development of the ductus venosus in wild type mouse and human embryos. *Early human development*, 89(12), 1067.

Sathananthan H, et al. (2012) Fine structure of progenitor cells in early ectopic human embryos. *Reproductive biomedicine online*, 25(3), 315.