

INDEX

abortion ectogenesis and abortion debate, 157 - 166ectogenesis impact on legislation, 155 - 156live abortuses, 143 paternal consent for, 134 regulation of, 79, 153-154, 271 research on aborted fetuses, 137-141 woman's bodily autonomy, 114, 161-166 Abortion Act (1967), 138, 147, 152, 155, 164, 168-169, 271 absolute uterine factor infertility (AUFI), 123, 188 Adashi, Eli, 103 amniotic fluid, artificial, 122 animal research and ectogenesis, 116-121 Animals (Scientific Procedures) Act 1986 (ASPA), 119 Animals (Scientific Procedures) Act 1986 Amendment Regulations 2012 (ASPA 2012), 119-120 anti-rejection medications, 123 AP, Garcon, and Nicot v. France, 230 ARB v. Hammsersmith Ltd, 10, 65, 66, 82 - 87artificial amniotic fluid, 122 artificial endometrium, 122-123 artificial gametes, 8 artificial placenta, 116-117 artificial wombs (ectogenesis) animal fetuses, 116-121 artificial amniotic fluid, 122 artificial endometrium, 122-123 benefit/risk ratio, 135-137 bio-engineered uterus, 123-124 complete ectogenesis, 124-128

conflict over, 111-116 de-gendering of reproduction, 64 extremely premature fetus, 130-135 human fetuses, 121-137 international human research, 121 - 124introduction to, 8, 10-13, 109-111 licensing issues, 37, 38 male pregnancy, 101 partial ectogenesis, 129-137 research on aborted fetuses, 137-141 summary of, 141-143, 271 United Kingdom, 124-137 artificial wombs (ectogenesis) regulation concerns abortion debate and, 157-166 abortion legislation, 155-156 complete ectogenesis, 166-178 dispute over fate of ectogenic fetus/ baby, 172-174 extremely premature fetus, 177-178 introduction to, 144-145 legal status of in vitro/ectogenic baby, 170-172 mandation on social grounds, 150 - 166opting for, 146–150 partial ectogenesis, 145-166 protection of fetus, 150-155 right not to reproduce, 159-161 summary of, 178 welfare of ectogenic fetus/baby, 175 - 178woman's bodily autonomy, 161-166 assisted reproductive technologies. See also in vitro fertilisation (IVF); male pregnancy; trans pregnancy; uterus transplantation amniotic fluid, artificial, 122



276

INDEX

assisted reproductive (cont.) anti-rejection medications, 123 artificial amniotic fluid, 122 artificial endometrium, 122-123 artificial gametes, 8 artificial placenta, 116–117 bioengineered uteri, 8, 123-124 cell nuclear replacement, 27, 128 challenges, 9-10 de-gendering of reproduction, 64-66 disabled fetuses, 148 fetal rescue technology, 114 fetal transfers, 133 future challenges, 60-63, 272-273 introduction to, 1-9, 10-16, 19, 34 oocyte freezing, 45 past challenges, 20-22 present challenges, 34-60 reproductive cloning, 1-2 saviour siblings, 1-2, 48-49, 50-54 social context, 47 specialist regulation, 22-34 stem cells, 45, 48, 51, 61, 123, 187 summary, 266-274 surrogacy, 113, 208, 210-212 test tube baby, 2 autonomy. See also bodily autonomy procreative autonomy, 20, 21, 94, 159-161, 174, 249 reproductive autonomy, 191

Beatie, Thomas, 229, 230, 240 Bellinger v Bellinger, 220, 225, 226 beta thalassaemia major, 49-50 bioengineered uteri, 8, 123-124 Births and Deaths Registration Act (1953), 130bodily autonomy male bodily autonomy, 245 woman's bodily autonomy, 76, 79, 90, 94, 114, 134, 161-166, 264 bone marrow donation, 51 Brave New World (Huxley), 113 Brazier, Margaret, 3, 269 'bright line rule' of certainty, 98 British Fertility Society, 39 British Medical Association, 136

British Medical Association Annual (BMA) Conference, 154 British Transplantation Society, 217 Brown, Louise, 176

cadaver (deceased) donation in uterus transplantation, 199-218 caesarean birth, 205 Care Quality Commission (CQC), 58-59 cell nuclear replacement (CNR), 27, 128 childrearing concerns, 81, 93 cis-gendered male pregnancy. See male pregnancy Civil Partnership Act (2004), 3 Clinical Commissioning Groups (CCGs), 206, 207 cloned embryos, 27-28 Code of Practice, 37, 43 Cohen, Glen, 103 commodification concerns, 114 complete ectogenesis, 124-128, 166-178 Congenital Disabilities (Civil Liability) Act (1976), 214, 215 consent effective consent, 70 paternal consent for abortion, 134 sperm donor consent, 77 upholding of, 67 uterus transplantation regulations, 191-193 withdrawal of consent to IVF, 89, 94, 95 consent to thaw, 83 consent to treatment together, 70 - 72,81contractual model, 94-100 cooling off period, 80 Corbett v Corbett, 225 Council of Europe, 230, 231 Cross, Hayden, 255 cryopreserved embryos, 103, 186

Davies, Sally, 130 Davis v Davis, 96, 102, 173–174 de-gendering of reproduction, 64–66



INDEX 277

deceased donation in uterus transplantation, 199-218 Declaration of Helsinki, 136 Deech, Ruth, 58 democratizing reproduction, 61 Diagnostic Manual of Mental Disorders (DSM), 224 *The Dialectic of Sex* (Firestone), 261-262 Diamond Blackfan Anaemia (DBA), 50 disabled fetuses, 148 discrimination concerns in Evans v Amicus, 78-79 Dobson, Frank, 247 Dolly the Sheep cloning, 62 donor concerns in uterus transplantation, 190-199 donor insemination, 34, 41 dual regulation in uterus transplantation, 216-218 ectogenesis. See artificial wombs ectogenic incubator, 166, 167, 259 egg extraction process, 91 embryos. See also Evans v Amicus; *in vitro* fertilisation (IVF) cloning of, 27-28 consent to thaw, 83 control of, with male pregnancy, 101 cryopreserved embryos, 103, 186 destruction of, 103, 129 disposition agreements, 103 fertilisation of, 79 frozen embryo disputes, 66-87, 268 human admixed (hybrid) embryos, 45 human embryo research, 35 introduction to, 1-2 non-medical sex selection of, 46-47 research challenges with, 266 special status of, 171 statutory maximum storage period for, 82 unimplanted embryo control, 87, 88 wrongful implantation, 86

ethico-legal decision-making, 47 Ethics and Law Advisory Group (ELAG), 44 ethics concerns. See artificial wombs (ectogenesis) regulation concerns European Convention on Human Rights (ECHR), 69, 250 European Court of Human Rights (ECtHR), 75-76, 164, 225 European Society of Human Reproduction and Embryology, 210 Evans v Amicus consent to treatment together, 70-72 equitable doctrine of estoppel, 72-74 gamete regulations, 10, 65, 66, 67-82 Human Fertilisation and Embryology Act, 79-82 introduction to, 67-69 legal issues, 69-70 procreative autonomy, 159-161, 174 Prohibition of Discrimination (Article 14 HRA), 78-79 Right to Life (Article 2 HRA), 75-76, 171 ex vivo research, 121 Expert Scientific Review, 55 extra-uterine device, 118 extracorporeal life support (ECLS), 116 extremely premature fetus, 130-135, 166, 177-178

F v. West Berkshire Health
Authority, 196
Family Law Act (1996), 40
feminist revolution, 112
feminizing hormone therapy, 228
Fertility Network UK, 206, 207
fetal rescue technology, 114
fetal transfers, 133
Foetal Alcohol Syndrome (FASD), 165
frozen embryo disputes, 66–87, 268
funding uterus transplantation,
206–209

gamete regulations alternative models for resolution, 87–104

endometrium, artificial, 122-123

equitable doctrine of estoppel, 72-74

English law, 97



> 278 INDEX

gamete regulations (cont.) contractual model, 94-100 de-gendering of reproduction, 64-66 Evans v Amicus, 10, 65, 66, 67-82 frozen embryo disputes, 66-87 last chance rule, 100-104 natural pregnancy model, 87-94 reproduction as central to women, 92 - 93summary of, 104-105 woman's investment in IVF process, 91 - 92gender binary, 220, 221, 225 gender dysphoria, 224-225, 226 gender equality concerns, 93-94, 260-264 gender identity, 223, 227, 229, 233 gender inequality, 112 gender-nonconforming, 228 gender reassignment, 225, 238 Gender Recognition Act (2004), 3, 226-227, 231, 232, 239-240, 257-258 genetic component of parenthood, 95 gestation rights with male pregnancy, 248 - 252Good Samaritans, 163 Goodwin v. UK, 225 Greenfield, Andy, 55 Hale, Brenda, 63 alternate family structures, 72 Hammersmith Fertility Clinic. See ARB donation in uterus transplantation, v. Hammsersmith Ltd Harris, Evan, 61 Health Research Authority, 188 hetero-normativity, 225 Home Office Working Group (UK), 227, 231, 232

Hopkins, Katie, 250 Horizon Scanning Panel (HSP), 8, 44, 267 House of Commons Science and **Technology Committee Inquiry** (2007), 29, 270human admixed (hybrid) embryos, 45 human embryo research, 35

Human Fertilisation and Embryology (Mitochondrial Donation) Regulations (2015), 56 Human Fertilisation and Embryology Act 1990 (HFE Act 1990) amendments to, 29, 30-31 complete ectogenesis, 124, 174 disposal of embryos, 129 dual regulatory frameworks of, 216-219 ectogenesis and, 271 effective consent, 70 enactment of, 25, 28-29, 180 human embryo research, 35 impact of, 33-34 introduction to, 2, 3 male pregnancy, 247-248, 257 non-medical sex selection of an embryo, 46-47 policy formulation, 43 review of, 29 same sex parenting, 264-265, 272 sperm donor consent, 77 unisex gestation, 236-237 updates to, 79-82 upholding consent, 67 Warnock Committee of Inquiry, 23, 32 Human Fertilisation and Embryology Act 2008 (HFE Act 2008) abortion regulation, 153-154, 271

200 - 201dual regulatory frameworks of, 216 - 219embryo control and storage, 87 impact of, 33-34 introduction to, 4, 5 male pregnancy, 256-257 overview of, 79-82 parenthood provisions, 30 reforms in, 31, 267 role of, 36 same sex parenting, 232, 264-265 surrogacy, 212 Human Fertilisation and Embryology Authority (HFEA)



INDEX 279

Code of Practice, 87, 134 effectiveness of, 38-42 establishment of, 25 formulation of policy, 42-60 'horizon scanning' programme, 8 introduction to, 3, 5, 34-36 licensing and inspection by, 37-42 oversight by, 180 Paradox of Legislation, 56-60 policy debacle, 48-56 public opinion, 45-48 regulation of ARTs, 267 thawing embryos, 83 unisex gestation, 236-237 Human Fertilisation and Embryology Bill (2007), 29, 268, 271 Human Leukocyte Antigen (HLA tissue typing), 48 human reproduction, 6 Human Reproductive Cloning Act (2001), 62, 128 Human Rights Act (1998), 3, 74-82 Human Tissue Act (2004), 3, 129-130, 139, 140, 150, 189, 190, 234, 245 - 246Human Tissue and Embryos Draft Bill (2007), 29, 57Human Tissue Authority (HTA), 129-130, 180, 189, 190, 191, 194 Hung-Ching Liu, 122 Huxley, Aldous, 113, 114

I v UK, 225 IDEAL (Innovation, Development, Exploration, Assessment, Longterm follow up), 186, 187 immunosuppressive treatment, 184, 205 implantation rights, 88 in vitro fertilisation (IVF) challenges with, 266 de-gendering of reproduction, 64-66 gender equality, 93-94 Human Fertilisation and Embryology Act, 79-82 introduction to, 1-2, 6, 9-10 legal/ethical questions of, 63, 67

legal status of in vitro/ectogenic baby, 170-172 male pregnancy, 247-248 mix-ups with, 39 regulation of, 48 for single women, 71 unisex gestation and, 236-239 withdrawing consent for, 78, 94, 95 woman's investment in, 91-92 in vivo embryos, 65, 75 Infant Life Preservation Act (1929), 151 infertility concerns, 103-104 inspection by Human Fertilisation and Embryology Authority, 37-42 International Classification of Diseases (ICD), 224 International Society of Uterus Transplantation (ISUTx), 187, 211

Jardine, Lisa, 5 Johnson, Diana, 155 Joint Scrutiny Committee, 46, 80

Kass, Leon, 1 Kass v Kass, 96, 174, v known donor, 239 Kuwabara, Yoshinori, 117–118

last chance rule, 100-104

Leather, Suzie, 62
legal parenthood, 41
lesbian, gay, bisexual, and trans
(LGBT), 231
Letterman, David, 229
licensing by Human Fertilisation and
Embryology Authority, 37–42
life threatening pregnancy, 146
live abortuses, 143

male bodily autonomy, 245
male gamete progenitor, 99
male pregnancy
control of embryos with, 101
fertility treatment, 247–248
gestation rights, 248–252
introduction to, 14–15, 240–243
legality of, 245–252
overview of, 240–264



280

male pregnancy (cont.)

parenthood concerns, 252-260

reasons for, 243-245

summary of, 264-265

uterus transplantation, 245–247

masculinizing hormone therapy, 228 Maternal Spindle Transfer (MST), 56

McCracken, Justin, 59

McFarlane v Tayside Health Board, 84,

85, 86

Medical Research Council (MRC),

25, 136

Medicines and Healthcare Products Regulatory Agency (MHRA), 57

Medicines for Human Use (Clinical

Trials) Regulations (2004), 135

Mental Capacity Act 2005, 191, 196

miscarriage, defined, 168

mitochondria DNA (mtDNA), 54–55

 $mit ochondrial\ donation,\ 1-2,$

33, 270

mitochondrial replacement therapies

(MRTs), 55–56

Morris, Nadine, 154

MRKH syndrome, 186, 195, 213

Mrs U v Centre for Reproductive

Medicine, 67

multiple birth risk, 91

National Institute for Health Care and Excellence (NICE), 206

National Organ Transplant Act 1984

(NOTA), 181

natural pregnancy model, 87-94

Nature, 125

Nature Cell Biology, 125

neuro-motor disabilities, 131

NHS Appointments Commission, 35

NHS Organ Donor Register, 235

Non-Identity problem, 212

non-medical fertility services, 79

non-medical sex selection of an

embryo, 46-47

Nuffield Council on Bioethics,

131–132, 177, 270

Offences against the Person Act

(1837), 151, 152

INDEX

Offences against the Person Act

(1861), 146–147, 151, 152,

167-168, 169

oocyte freezing, 45

opt-in organ procurement system, 234

opt-out organ procurement system,

202-203

Organ Donor Register (ODR), 246

ovarian hyper stimulation

syndrome, 91

ownership rights to IVF embryos,

96-97

Paradox of Legislation, 56–60

parenthood

genetic component of, 95

legal parenthood, 41 male pregnancy, 252–260

provisions over, 30

provisions over, 30

same sex parenting, 232,

264–265, 272

third generic parent, 55

trans pregnancy, 228–233

unisex gestation and, 228-233

Parkinson's disease, 129

partial ectogenesis, 129-137, 145-166

paternal consent for abortion, 134

Paton v. UK, 75, 170

policy formulation of Human

Fertilisation and Embryology

Authority, 42-60

Polkinghorne Committee, 129, 140,

141, 149

Polkinghorne Report, 133, 136,

148-149

Pre-Implantation Genetic Diagnosis

(PGD), 30, 48

presumptive rights, 88

procreative autonomy, 20, 21, 94,

159-161, 174, 249

Prohibition of Discrimination (Article

14 HRA), 78-79

Pronuclear Transfer (PNT), 56

Public Bodies Act (2011), 58

public opinion on Human Fertilisation

and Embryology Authority, 45-48

pumpless arteriovenous oxygenator

circuit, 117



INDEX 281

Royal College of Surgeons, 217

Health, 136

Royal College of Paediatrics and Child

quality adjusted life year (QALY), 209 R (On the Application of Smeaton) v. Secretary of State for Health, 168 R (Quintavalle) v. Human Fertilisation and Embryology Authority, 52 R (Quintavalle) v. Secretary of State for Health, 27 R v. Bourne, 151 R v. Scrimaglia, 164 radical feminist, 112 Rance v Mid-Downs Health Authority, 155 Re F (in utero), 75 Re Human Fertilisation and Embryology Act (2008), 40, 41 Re R (Children) (Residence: Same-Sex Partner), 259 Re W and B, 76 recipient concerns in uterus transplantation, 204-206 Rees v Darlington Memorial Hospital NHS Trust, 84, 85, 86 regenerative medicine, 123 Regulatory Authority for Tissue and Embryos (RATE), 57-58, 216 repro-normativity, 231 reproduction as central to women, 92 - 93reproductive autonomy, 191 reproductive cloning, 1-2 Reproductive Health (Access to Terminations) Bill (2016-2017), 154reproductive liberty, 20 Rickard, Susanna, 86 right not to reproduce, 159-161 Right to Life (Article 2 HRA), 75-76, 171 Right to Privacy (Article 8 HRA), 76-78 right to privacy vs. free speech, 250 Royal College of Midwives, 154 Royal College of Nursing of the United Kingdom v. Department of Health and Social Security, 27 Royal College of Obstetricians and Gynaecologists (RCOG), 25, 132,

same sex parenting, 232, 264-265, 272 saviour siblings, 1-2, 48-49, 50-54 Schaffer, Thomas, 122 Science and Technology Committee, 62 Scientific and Clinical Advances Advisory Committee (SCAAC), 44, 61, 267 'second wave' of human reproduction, 9 Select Committee on Science and Technology (2004), 44 self-declaration of gender identity, 227 sensory disabilities, 131 sex selection, 1-2, 30 'sexual family' model, 254 Society for Assisted Reproductive Technologies, 184 sperm donor consent, 77 St George's Health Care Trust v. S, 147, 162, 170 statutory maximum storage period for embryos, 82 stem cells, 45, 48, 51, 61, 123, 187 Steptoe, Patrick, 109 surrogacy, 113, 208, 210-212 Surrogacy Arrangements Act (1985), 97 test tube baby, 2

testicular stem cells, 45
third generic parent, 55
tissue engineering, 123
tissue freezing, 45
Toft Report, 39
tort-specific objections, 85
traditional pregnancy with
ectogenesis, 112
trans-generational health risks, 55
trans pregnancy
introduction to, 14–15, 220–222
obtaining fertility treatment for,
236–239
overview of, 222–240
parenthood and, 228–233

138, 217



282

INDEX

trans pregnancy (cont.) realigning reproductive function, 233-234 summary, 239-240, 264-265 uterus transplantation, 234-236 transsexualism, 223, 228 treatment together, 70-72, 81 UK Transplant (UKT), 235 Uniform Anatomical Gift Act (UAGA), 181 unimplanted embryo control, 88 unisex gestation. See male pregnancy; trans pregnancy uterine factor infertility (UFI), 167, 179, 183-184 uterus transplantation. See also male pregnancy; trans pregnancy gender equality/inequality issues, 260-264 introduction to, 1-2, 8, 13-14 male pregnancy, 101, 245-247 safety issues, 242 successful trials, 62-63 trans and male pregnancy, 14-15 trans pregnancy, 234-236 uterus transplantation regulations availability concerns, 193-194 cadaver (deceased) donation, 199-218 coercion risk, 194-195 consent issues, 191-193 dual regulation, 216-218 funding of, 206-209 introduction to, 179–183 living donor concerns, 190–199 patient who lacks capacity, 195-197

payment concerns, 197–199 recipient concerns, 204–206 scientific overview, 183–188 summary of, 218–219 United Kingdom model, 189–190

vascular anastomosis, 185 Vo v. France, 75, 164, 170 Voluntary Licensing Authority (VLA), 25

Warnock, Mary, 79 Warnock Committee of Inquiry disposal of aborted fetuses, 140-141 ectogenesis and, 115-116, 125, 126-127 funding uterus transplantation, 208 impact of, 269-270 introduction to, 2, 23-24, 32 IVF for single women, 71 ownership rights to IVF embryos, 96-97, 98 parenting concerns, 253 special status of embryos, 171 welfare of child, 81 welfare of ectogenic fetus/baby, 175 - 178withdrawal of consent to IVF, 89, 94, 95 woman's bodily autonomy, 76, 79, 90, 94, 114, 134, 161-166, 264 Women and Equalities Select Committee Report on Transgender Equality, 227 World Health Organization Guiding Principle, 200 wrongful implantation, 86