Index

Note: Page numbers followed by f and t indicates figures and tables respectively.

Achucin A, 61
Acute atherosis, 12, 108
histology of, 13f
Acute chorioamnionitis, 108, 109f
lesions of membranes, 109
Acute funisitis, 109
Acyl ghrelin (AG), 79
ADAM 12.
See Disintegrin and metalloprotease 12 (ADAM 12)
Adaptive immune system, 28, 28f
Addiction
nicotine, 307
Adeno-associated virus (AAV), 262–3
Adiponectin, 59t, 63
Adipocytokines, 63
Adipophilin, 78
Adrenocorticotropin, 62
AF.
See Amniotic fluid (AF)
Affinity labeling, 193–4
antibody-based (Immunolabeling)
anti-endorphine, 193–4
reporter systems, 193
correlative microscopy, 194
AFP.
See Alphafetoprotein (AFP)
AG.
See Acyl ghrelin (AG)
Agenesis, of UC, 117, 117f
A-ketoglutarate, 53
Alanine, 54
A-linolenic, 6
Allantois projects, 114
Alphafetoprotein (AFP), 64, 141
analysis of, 143
Allelic differences, 5
Allatcheracys, 114
Alkaline protease, 50
Aneuploidy
chimerism
versus
mosaicism, 273–5
chromosomal mosaicism, 271
diagnosis of, 276–7
incidence, 270
origin, 271
risk factors, 271
Angelman syndrome (AS), 91
Antiphospholipid antibodies, 255
Antiphospholipid syndrome (APS), 219–20
diagnostic criteria for, 219f
Arachidonic acid (AA), 75
BA.
See Biparental inheritance (BiHM)
Biparental/androgenetic chimerism, 274
Biparental inheritance (BiHM), 92
Bites, 21
BWS.
See Beckwith-Wiedemann syndrome
(BWS)
Brightfield microscopy (BFM), 189
Bupropion, 307–8
Burk-Turner chamber, 156
BWS.
See Beckwith-Wiedemann syndrome
(BWS)
CAMP.
See Cyclic adenosine monophosphate (cAMP)
Captopril growth
oxygen influences, 34–40
of pregnancy, 36
Cardiovascular disease (CVD), 10
CEF.
See Congenital diaphragmatic hernia
(CDI)
Celiac disease, 218–19
Call-cell interactions, 179
Call-line DNA, 82
Cell-free fetal DNA
as a marker, 336
Cell-free fetal DNA (cffDNA), 334–5
Charge-coupled devices (CCD), 189
CHD.
See Coronary heart disease (CHD)
Index

**Umbilical artery**
- Doppler velocimetry of, 128, 129f
- relationships, 241f

**Umbilical cord (UC)**
- acute funisitis, 109
- agenesis of, 117, 117f
- anatomy of, 114
- bleeding of, 147
- coiling of, 119
- cysts, 118
- differentiation of, 118–20
- disruption of, 120–1
- fetal insertion site, abnormalities of, 117–18
- fetoplacental circulation of, 115f
- infection and inflammation of, 120
- length of, 118–19
- loss of integrity, 121
- malformations of, 117–18
- microtubule-associated vascular necrosis, 109
- normal development, 114, 116f, 117
- placental site, abnormalities of, 118
- secondary vascular abnormalities, 119–20
- stiffness of, 119
- stromal volume of, 119
- thrombi of, 121
- toxic exposure of, 120
- vascular obstruction of, 120–1

**Umbilical cord blood**
- disadvantages of, 323–4
- future of, 325
- uses, 323, 324–5

**Unfolded protein response (UPR)**
- relationships, 241f
- unfolded protein response (UPR)
- Unollarsin, 24, 61

**US Food and Drug Administration**
- 132

**US National Institute for Child Health and Human Development (NICHD)**
- 142

**Urine artery**
- Doppler velocimetry of, 128, 129f
- relationships, 241f

**Urocr {'007697419'}tin, 59t, 62

**US Food and Drug Administration**
- 132

**US National Institute for Child Health and Human Development (NICHD)**
- 142

**Uteroplacental hypoxia**
- 45

**Uteroplacental tissues, in humans**
- 6

**Vasa previa**
- location of, 123–4

**Vascular development, in placenta**
- 36

**Vascular diseases, risk factor for**
- 12f

**Vascular endothelial growth factor (VEGF)**
- 38, 63–4, 161

**Vascular endothelium-derived growth factor (VEGF)**
- 14

**Vascularization flow index (VFI)**
- 125

**Vascularization index (VI)**
- 125

**Vasculogenesis**
- early in placental development, 36–7

**Vasculosyncytial membranes**
- 24, 105

**VCIIO**
- See Villous cytotrophoblast cells (vCIIO)

**VCIIO,167–8

**VCIIO**
- See Vascular endothelial growth factor (VEGF)
- VEGF (vascular endothelial growth factor), 184

**VEGFI B receptor-1 (VEGFR-1)**
- 43

**Villitis of unknown etiology (VUE)**
- 106

**Villous core, components of**
- 24

**Villous cytotrophoblast cells (CTB)**
- 29

**Villous diseases**
- diagnosis, 279–80
- incidence, 281

**Villous edema**
- 107

**Villous hemochorial placenta**
- 19

**Villous etiolic cells**
- 57

**Villous tissue, pathological changes of**
- 105–7
- chronic villitis, 106
- distal villous hypoplasia, 105–6
- distal villous immaturity, 106
- dysmorphic villi, 106
- FTV, 105
- mesenchymal displays, 107
- perivillous fibrin, 107
- villitis of unknown etiology, 106
- villous edema, 107
- villous tree derivatives, 22, 23f

**Virtual organ computer-aided analysis (VOCAL)**
- 125

**Vistaxis, 63

**VOCAL**
- See Virtual Organ Computer-Aided Analysis (VOCAL)

**VOCAL**
- See Virtual Organ Computer-Aided Analysis (VOCAL)

**Wang Wilkbrand factor (WF)**
- 163

**WF**
- See von Willebrand factor (vWF)

**Welsh-Palade bodies**
- 20

**Wiberg's chalazion, 163, 167

**Wilkiesch's auditory matrix, 108, 114

**X chromosome inactivation (XCI)**
- 91

**XCI**
- See X chromosome inactivation (XCI)

**X chromosomal inactivation (XCI)**
- 91

**X-linked agents**
- 177

**XCTB**
- See Extravillous CTB (xCTB)

**Yolk sac**
- 20

**Zona breaking cells, 20

**Zygotic, 20