

## 疾病及基因列表

List of Genes & Disorders

| 序號 | 類別                                      | v1.0 | v2.0 | v3.0 |
|----|---|------|------|------|
| 1  | Drug Hypersensitivity Reaction 藥物過敏反應   | ●    | ●    | ●    |
| 2  | Hearing Loss 聽損                         | ●    | ●    | ●    |
| 3  | Central Nervous System Disease 中樞神經系統疾病 | ●    | ●    | ●    |
| 4  | Metabolic Disorders 代謝疾病                |      | ●    | ●    |
| 5  | Blood Disorders 血液疾病                    |      | ●    | ●    |
| 6  | Multi Symptom Disorders 多症狀疾病           |      | ●    | ●    |
| 7  | Immunodeficiency Disorders 免疫缺陷疾病       |      |      | ●    |
| 8  | Pediatric Cancers 小兒癌症                  |      |      | ●    |
| 9  | Epilepsy 癲癇                             |      |      | ●    |
| 10 | Muscular Diseases 肌肉疾病                  |      |      | ●    |
| 11 | Vision Loss 視力喪失                        |      |      | ●    |
| 12 | Congenital Heart Defect 先天性心臟缺損         |      |      | ●    |

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## 慧智新生兒基因檢測

SOFIVA Baby Scan

| 序號 | 疾病/藥物<br>Disorder/Medicine                                      | 基因<br>Gene                             | 類別<br>Category                             | v1.0 | v2.0 | v3.0 |
|----|---|--|--|------|------|------|
| 1  | Aminoglycoside<br>氨基糖苷類抗生素                                      | MTRNR1                                 | Drug Hypersensitivity Reaction<br>藥物過敏反應   | ●    | ●    | ●    |
| 2  | Sensorineural hearing loss<br>感覺神經性聽損                           | CMV<br>GJB2<br>GJB3<br>OTOF<br>SLC26A4 | Hearing Loss 聽損                            | ●    | ●    | ●    |
| 3  | Congenital Central Hypoventilation Syndrome, CCHS<br>先天中樞性換氣不足症 | PHOX2B                                 | Central Nervous System Disease<br>中樞神經系統疾病 | ●    | ●    | ●    |
| 4  | Allopurinol<br>安樂普利諾  | HLA-B*5801                             | Drug Hypersensitivity Reaction<br>藥物過敏反應   |      | ●    | ●    |
| 5  | Carbamazepine<br>卡馬西平   | HLA-A*3101<br>HLA-B*1502               |  |      | ●    | ●    |
| 6  | Dapsone<br>達普頌  | HLA-B*13:01                            |  |      | ●    | ●    |
| 7  | Halothane<br>氟烷   |  |  |      | ●    | ●    |
| 8  | Isoflurane<br>異氟醚   | CACNA1S<br>RYR1                        |  |      | ●    | ●    |
| 9  | Suxamethonium<br>琥珀膽鹼   |  |  |      | ●    | ●    |

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|----|---|------------------|--|------|------|------|
| 10 | Warfarin<br>華法林   | CYP2C9<br>VKORC1 | Drug Hypersensitivity Reaction<br>藥物過敏反應 |      | ●    | ●    |
| 11 | ABCD syndrome<br>ABCD 症候群                                     | EDNRB            |  |      | ●    | ●    |
| 12 | Waardenburg syndrome type 4A<br>瓦登伯革氏症候群第 4A 型                |                  |  |      | ●    | ●    |
| 13 | Branchiootic syndrome type 1<br>Branchiootic 症候群第 1 型         | EYA1             |  |      | ●    | ●    |
| 14 | Branchiootorenal syndrome type 1<br>Branchiootorenal 症候群第 1 型 |                  |  |      | ●    | ●    |
| 15 | Branchiootic syndrome type 3<br>Branchiootic 症候群第 3 型         | SIX1             | Hearing Loss 聽損                          |      | ●    | ●    |
| 2  | Sensorineural hearing loss<br>感覺神經性聽損                         |                  |  |      | ●    | ●    |
| 16 | Branchiootorenal syndrome type 2<br>Branchiootorenal 症候群第 2 型 | SIX5             |  |      | ●    | ●    |
| 17 | COMMAD syndrome<br>COMMAD 症候群                                 | MITF             |  |      | ●    | ●    |
| 18 | Tietz syndrome<br>Tietz 症候群                                   |                  |  |      | ●    | ●    |

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|----|--|------------|-----------------|------|------|------|
| 19 | Waardenburg syndrome type 2A<br>瓦登伯革氏症候群第 2A 型                                 | MITF       | Hearing Loss 聽損 |      | ●    | ●    |
| 20 | Waardenburg syndrome/ocular albinism,<br>digenic<br>雙基因型之瓦登伯革氏症候群/眼睛白化症        |            |                 |      |      | ●    |
| 21 | Craniofacial-deafness-hand syndrome<br>顱面聾手綜合症                                 | PAX3       |                 |      | ●    | ●    |
| 22 | Waardenburg syndrome type 1<br>瓦登伯革氏症候群第 1 型                                   |            |                 |      | ●    | ●    |
| 23 | Waardenburg syndrome type 3<br>瓦登伯革氏症候群第 3 型                                   |            |                 |      | ●    | ●    |
| 24 | Jervell and Lange-Nielsen syndrome type 2<br>Jervell & Lange-Nielsen 氏症候群第 2 型 | KCNE1      |                 |      | ●    | ●    |
| 25 | Oculodentodigital dysplasia<br>眼齒指發育不全   | GJA1       |                 |      | ●    | ●    |
| 26 | PCWH syndrome<br>PCWH 症候群  | SOX10      |                 |      | ●    | ●    |
| 27 | Waardenburg syndrome type 2E<br>瓦登伯革氏症候群第 2E 型                                 |            |                 |      |      | ●    |

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|--------|---|------------|-----------------|------|------|------|
| 28     | Waardenburg syndrome type 4C<br>瓦登伯革氏症候群第 4C 型        | SOX10      |                 |      | ●    | ●    |
| 2      | Sensorineural hearing loss<br>感覺神經性聽損                 | AIFM1      | Hearing Loss 聽損 |      |      |      |
|        |   | DIAPH3     |                 |      |      |      |
|        |   | FOXI1      |                 |      |      |      |
|        |   | GJB4       |                 |      |      |      |
|        |   | GJB6       |                 |      | ●    | ●    |
|        |   | MYO15A     |                 |      |      |      |
|        |   | PJK        |                 |      |      |      |
| POU3F4 |   |            |                 |      |      |      |
| POU4F3 |   |            |                 |      |      |      |
| 2      | Sensorineural hearing loss<br>感覺神經性聽損                 | KCNJ10     |                 | ●    | ●    |      |
| 29     | SeSAME syndrome<br>SeSAME 症候群                         |            |                 | ●    | ●    |      |
| 30     | Waardenburg syndrome type 2D<br>瓦登伯革氏症候群第 2D 型        | SNAI2      |                 | ●    | ●    |      |
| 31     | Waardenburg syndrome type 4B<br>瓦登伯革氏症候群第 4B 型        | EDN3       |                 | ●    | ●    |      |
| 32     | X-linked Charcot-Marie-Tooth disease<br>性聯遺傳進行性腓骨肌萎縮症 | GJB1       |                 | ●    | ●    |      |

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|----|--|------------|--------------------------|------|------|------|
| 33 | 3-Hydroxy-3-methylglutaryl CoA lyase deficiency, HMG<br>3-羥基-3-甲基戊二酸尿症                     | HMGCL      |                          |      | ●    | ●    |
| 34 | 3-Methylcrotonyl-CoA carboxylase 1 deficiency<br>3-甲基巴豆醯輔酵素羧化酵素缺乏症第 1 型                    | MCCC1      |                          |      | ●    | ●    |
| 35 | 3-Methylcrotonyl-CoA carboxylase 2 deficiency<br>3-甲基巴豆醯輔酵素羧化酵素缺乏症第 2 型                    | MCCC2      |                          |      | ●    | ●    |
| 36 | Anemia, nonspherocytic hemolytic, due to G6PD deficiency<br>G6PD 缺乏症 (蠶豆症)                 | G6PD       |                          |      | ●    | ●    |
| 37 | Biotinidase deficiency, BD<br>生物素酶缺乏症  | BTD        |                          |      | ●    | ●    |
| 38 | Carnitine palmitoyltransferase deficiency type 1, CPT I<br>肉鹼棕櫚醯基轉移酶缺乏症第 1 型               | CPT1A      | Metabolic Disorders 代謝疾病 |      | ●    | ●    |
| 39 | Carnitine palmitoyltransferase deficiency type 2, CPT II<br>肉鹼棕櫚醯基轉移酶缺乏症第 2 型              | CPT2       |                          |      | ●    | ●    |
| 40 | Citrullinemia type 1, CIT I<br>瓜胺酸血症第 1 型  | ASS1       |                          |      | ●    | ●    |
| 41 | Citrullinemia type 2, CIT II<br>瓜胺酸血症第 2 型   | SLC25A13   |                          |      | ●    | ●    |
| 42 | Congenital adrenal hyperplasia due to 21 hydroxylase deficiency, CAH<br>21-羥化酶缺乏之先天性腎上腺增生症 | CYP21A2    |                          |      | ●    | ●    |

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|----|---|------------|--------------------------|------|------|------|
| 43 | Congenital nongoitrous hypothyroidism-1<br>先天性甲狀腺機能低下症第 1 型                 | TSHR       | Metabolic Disorders 代謝疾病 |      | ●    | ●    |
| 44 | Congenital nongoitrous hypothyroidism-2<br>先天性甲狀腺機能低下症第 2 型                 | PAX8       |                          |      | ●    | ●    |
| 45 | Congenital nongoitrous hypothyroidism-4<br>先天性甲狀腺機能低下症第 4 型                 | TSHB       |                          |      | ●    | ●    |
| 46 | Congenital nongoitrous hypothyroidism-5<br>先天性甲狀腺機能低下症第 5 型                 | NKX2-5     |                          |      | ●    | ●    |
| 47 | Congenital nongoitrous hypothyroidism-6<br>先天性甲狀腺機能低下症第 6 型                 | THRA       |                          |      | ●    | ●    |
| 48 | Dihydrolipoamide dehydrogenase deficiency<br>二氫硫辛醯胺脫氫酶缺乏症                   | DLD        |                          |      | ●    | ●    |
| 49 | Galactosemia, GAL<br>半乳糖血症  | GALT       |                          |      | ●    | ●    |
| 50 | Glutaricaciduria type 1, GA I<br>戊二酸血症第 1 型                                 | GCDH       |                          |      | ●    | ●    |
| 51 | Holocarboxylase synthetase deficiency, HCSD<br>全羧化酶合成酶缺乏                    | HLCS       |                          |      | ●    | ●    |
| 52 | Homocystinuria due to cystathionine beta-synthase deficiency, HCU<br>高胱氨酸尿症 | CBS        |                          |      | ●    | ●    |
| 53 | Isovaleric academia, IVA<br>異戊酸血症   | IVD        |                          | ●    | ●    |      |

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|----|--|------------|--------------------------|------|------|------|
| 54 | Long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency, LCHAD<br>長鏈 3-羥基醯基輔酶 A 脫氫酶缺乏症 | HADHA      | Metabolic Disorders 代謝疾病 |      | ●    | ●    |
|    |  | BCKDHA     |                          |      |      |      |
| 55 | Maple syrup urine disease, MSUD<br>楓糖尿症  | BCKDHB     |                          |      | ●    | ●    |
|    |  | DBT        |                          |      |      |      |
| 56 | Medium-chain acyl-CoA dehydrogenase deficiency, MCAD<br>中鏈醯輔酶A去氫酶缺乏症                 | ACADM      |                          |      | ●    | ●    |
|    |  | MMAA       |                          |      |      |      |
| 57 | Methylmalonic academia, MMA<br>甲基丙二酸血症   | MMAB       |                          |      | ●    | ●    |
|    |  | MUT        |                          |      |      |      |
| 58 | Multiple acyl-CoA dehydrogenase deficiency, MADD<br>戊二酸血症第 2 型                       | ETFA       |                          |      |      |      |
|    |  | ETFB       |                          |      | ●    | ●    |
|    |  | ETFDH      |                          |      |      |      |
| 59 | Phenylketonuria, PKU<br>苯酮尿症   | PAH        |                          |      | ●    | ●    |
| 60 | Primary carnitine deficiency, PCD<br>原發性肉鹼缺乏症  | SLC22A5    |                          |      | ●    | ●    |



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|----|---|--------------|----------------------------------|------|------|------|
| 61 | Propionic academia, PA<br>丙酸血症  | PCCA<br>PCCB | Metabolic Disorders 代謝疾病         |      | ●    | ●    |
| 62 | Thyroid dyshormonogenesis type 6<br>甲狀腺激素生成障礙第 6 型                          | DUOX2        |                                  |      | ●    | ●    |
| 63 | Trifunctional protein deficiency, MTPD<br>三功能蛋白缺乏症                          | HADHB        |                                  |      | ●    | ●    |
| 64 | Very long chain acyl-CoA dehydrogenase deficiency, VLCAD<br>極長鏈醯輔酶 A 去氫酶缺乏症 | ACADVL       |                                  |      | ●    | ●    |
| 65 | Beta-thalassemia<br>乙型海洋性貧血   | HBB          | Blood Disorders 血液疾病             |      | ●    | ●    |
| 66 | Sickle cell anemia<br>鐮刀型貧血   |              |                                  |      |      |      |
| 67 | Familial transient neonatal hyperbilirubinemia<br>家族性暫時性新生兒高膽紅素血症           | UGT1A1       | Multi Symptom Disorders<br>多症狀疾病 |      | ●    | ●    |
| 2  | Sensorineural hearing loss<br>感覺神經性聽損                                       | CDH23        | Hearing Loss 聽損                  |      |      | ●    |
|    |   | TECTA        |                                  |      |      |      |
|    |   | TMIE         |                                  |      |      |      |
|    |   | TMPRSS3      |                                  |      |      |      |
|    |   | TPRN         |                                  |      |      |      |
|    |   | TRIOBP       |                                  |      |      |      |

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|----|---|------------|-----------------|--------------------------|------|------|
| 2  | Sensorineural hearing loss<br>感覺神經性聽損   | USH1C      | Hearing Loss 聽損 |                          |      | ●    |
| 68 | Usher syndrome type 1C<br>尤塞氏綜合症第 1C 型  |            |                 |                          |      | ●    |
| 2  | Sensorineural hearing loss<br>感覺神經性聽損   | WHRN       |                 |                          |      | ●    |
| 69 | Usher syndrome type 2D<br>尤塞氏綜合症第 2D 型  |            |                 |                          |      | ●    |
| 70 | Usher syndrome type 1G<br>尤塞氏綜合症第 1G 型  | USH1G      |                 |                          |      | ●    |
| 71 | Usher syndrome type 2A<br>尤塞氏綜合症第 2A 型  | USH2A      |                 |                          |      | ●    |
| 72 | 17-Beta hydroxysteroid dehydrogenase 3<br>deficiency<br>17-β-羥基類固醇脫氫酶缺乏症第 3 型 | HSD17B3    |                 | Metabolic Disorders 代謝疾病 |      |      |
| 73 | 2-Methylbutyryl-CoA dehydrogenase<br>deficiency<br>2-甲基丁醯輔酶 A 去氫酶缺乏症          | ACADSB     |                 |                          |      | ●    |
| 74 | 3-Methylglutaconyl-CoA hydratase deficiency<br>3-甲基戊烯二醯輔酶A水和酶缺乏症              | AUH        |                 |                          |      | ●    |
| 75 | Adrenoleukodystrophy, ALD<br>腎上腺腦白質失養症  | ABCD1      |                 |                          |      | ●    |

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|----|--|------------|--------------------------|------|------|------|
| 76 | Alpha-methylacetoacetic aciduria<br>(Mitochondrial acetoacetyl-CoA thiolase deficiency)<br>粒線體乙醯輔酶 A 硫解酶缺乏症                          | ACAT1      | Metabolic Disorders 代謝疾病 |      |      | ●    |
| 77 | Argininemia, ARG<br>精胺酸血症  | ARG1       |                          |      |      | ●    |
| 78 | Argininosuccinic aciduria<br>精胺丁二酸酵素缺乏症  | ASL        |                          |      |      | ●    |
| 79 | Carbamoylphosphate synthetase 1 deficiency<br>氨甲醯磷酸合成酶缺乏症第 1 型   | CPS1       |                          |      |      | ●    |
| 80 | Carnitine acylcarnitine translocase deficiency,<br>CACTD<br>肉鹼穿透障礙   | SLC25A20   |                          |      |      | ●    |
| 81 | Congenital adrenal hyperplasia due to 17-<br>alpha-hydroxylase deficiency<br>17- $\alpha$ -羥化酶缺乏引起之先天性腎上腺增生                          | CYP17A1    |                          |      |      | ●    |
| 82 | Congenital adrenal hyperplasia due to 3-beta-<br>hydroxysteroid dehydrogenase 2 deficiency<br>3- $\beta$ -羥基類固醇脫氫酶缺乏引起之先天性腎上腺增生第 2 型 | HSD3B2     |                          |      |      | ●    |
| 83 | Congenital amegakaryocytic thrombocytopenia<br>先天巨核細胞缺乏血小板低下症  | MPL        |                          |      |      | ●    |
| 84 | Ethylmalonic encephalopathy, EE<br>乙基丙二酸腦病變  | ETHE1      |                          |      |      | ●    |

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|----|---|------------|--------------------------|------|------|------|
| 85 | Fabry disease<br>法布瑞氏症  | GLA        | Metabolic Disorders 代謝疾病 |      |      | ●    |
| 86 | Familial hypercholesterolemia<br>家族性高膽固醇血症  | LDLR       |                          |      |      | ●    |
| 87 | Familial hyperinsulinism<br>家族性胰島素過多症   | ABCC8      |                          |      |      | ●    |
| 88 | Neonatal diabetes<br>新生兒糖尿病   |            |                          |      |      |      |
| 89 | Familial lipoprotein lipase deficiency, LPL<br>家族性脂蛋白酵素功能不良症                        | LPL        |                          |      |      | ●    |
| 90 | Galactokinase deficiency<br>半乳糖激酶缺乏症  | GALK1      |                          |      |      | ●    |
| 91 | Gaucher disease<br>高雪氏症   | GBA        |                          |      |      | ●    |
| 92 | Glycine encephalopathy, GCE<br>(Nonketotic Hyperglycemia, NKHG)<br>甘氨酸腦病(非酮性高甘氨酸血症) | AMT        |                          |      |      | ●    |
|    |   | GLDC       |                          |      |      |      |
| 93 | Glycine N-methyltransferase deficiency<br>甘氨酸 N-甲基轉移酶缺乏症                            | GNMT       |                          |      |      | ●    |
| 94 | Glycogen storage disease type 1A, GSD1A<br>肝糖儲積症第 1 型                               | G6PC       |                          |      |      | ●    |
| 95 | Glycogen storage disease type 2, GSD II<br>(Pompe Disease)<br>肝糖儲積症第 2 型 (龐貝氏症)     | GAA        |                          |      |      | ●    |

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|-----|---|------------|--------------------------|------|------|------|
| 96  | Gyrate atrophy of choroid and retina, HOGA<br>(Hyperornithinemia with gyrate atrophy)<br>高鳥胺酸血症伴隨脈絡膜及視網膜渦旋狀萎縮 | OAT        |                          |      |      | ●    |
| 97  | Hyperammonemia, Hyperornithinemia,<br>Homocitrullinuria Syndrome, HHH S<br>高鳥氨酸-高血氨-高瓜胺酸綜合症候群                 | SLC25A15   |                          |      |      | ●    |
| 98  | Hypermethioninemia with S-<br>adenosylhomocysteine hydrolase deficiency<br>高甲硫胺酸血症伴隨 S-腺苷-L-高半胺酸水解酵素<br>缺乏症   | AHCY       |                          |      |      | ●    |
| 99  | Hyperphenylalaninemia, BH4-deficient, Type A<br>A 型四氫基喋呤缺乏之高苯丙胺酸血症  | PTS        | Metabolic Disorders 代謝疾病 |      |      | ●    |
| 100 | Hyperphenylalaninemia, BH4-deficient, Type B<br>B 型四氫基喋呤缺乏之高苯丙胺酸血症  | GCH1       |                          |      |      | ●    |
| 101 | Hyperphenylalaninemia, BH4-deficient, Type C<br>C 型四氫基喋呤缺乏之高苯丙胺酸血症  | QDPR       |                          |      |      | ●    |
| 102 | Hyperphenylalaninemia, BH4-deficient, Type D<br>D 型四氫基喋呤缺乏之高苯丙胺酸血症  | PCBD1      |                          |      |      | ●    |
| 103 | Hypophosphatasia<br>低磷酸酯酶症  | ALPL       |                          |      |      | ●    |
| 104 | Isobutyryl-CoA dehydrogenase deficiency,<br>IDBB<br>異丁醯輔酶 A 去氫酶缺乏症  | ACAD8      |                          |      |      | ●    |

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| 序號  | 疾病/藥物<br>Disorder/Medicine   | 基因<br>Gene      | 類別<br>Category           | v1.0 | v2.0 | v3.0 |
|-----|--|-----------------|--------------------------|------|------|------|
| 105 | Malonyl-CoA decarboxylase deficiency<br>丙二醯輔酶 A 脫羧酶缺乏症   | MLYCD           | Metabolic Disorders 代謝疾病 |      |      | ●    |
| 106 | Maternal vitamin B12 deficiency<br>( Methylmalonic aciduria and homocystinuria<br>cb1C type)<br>甲基丙二酸血症缺乏維生素 B12 | MMACHC<br>PRDX1 |                          |      |      | ●    |
| 107 | Menkes syndrome<br>緬克斯症候群  | ATP7A           |                          |      |      | ●    |
| 108 | Methionine adenosyltransferase I/III deficiency<br>甲硫胺酸腺苷轉移酶 I/III 缺乏症   | MAT1A           |                          |      |      | ●    |
| 109 | Mucopolysaccharidosis type 1, MPS I<br>(Hurler syndrome)<br>黏多醣症第 1 型(賀勒氏症)                                      | IDUA            |                          |      |      | ●    |
| 110 | Mucopolysaccharidosis type 2<br>(Hunter syndrome), MPS II<br>黏多醣症第 2 型(韓特氏症)                                     | IDS             |                          |      |      | ●    |
| 111 | Mucopolysaccharidosis type 3C<br>(Sanfilippo Syndrome), MPS 3C<br>黏多醣症第 3C 型(聖菲利柏氏症)                             | HGSNAT          |                          |      |      | ●    |
| 112 | Mucopolysaccharidosis type 6<br>(Maroteaux-Lamy syndrome), MPS VI<br>黏多醣症第 6 型(馬洛托-拉米氏症)                         | ARSB            |                          |      |      | ●    |

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| 序號  | 疾病/藥物<br>Disorder/Medicine  | 基因<br>Gene | 類別<br>Category           | v1.0 | v2.0 | v3.0 |
|-----|---|------------|--------------------------|------|------|------|
| 113 | Niemann-Pick disease type A<br>尼曼匹克症 A 型  | SMPD1      | Metabolic Disorders 代謝疾病 |      |      | ●    |
| 114 | Niemann-Pick disease type B<br>尼曼匹克症 B 型  |            |                          |      |      | ●    |
| 115 | Niemann-Pick disease type C1<br>尼曼匹克氏症 C1 型                                       | NPC1       |                          |      |      | ●    |
| 116 | Ornithine transcarbamylase deficiency, OTC<br>鳥胺酸氨甲醯基轉移酶缺乏症                       | OTC        |                          |      |      | ●    |
| 117 | Permanent neonatal diabetes mellitus<br>永久性新生兒糖尿病                                 | KCNJ11     |                          |      |      | ●    |
| 118 | Pyruvate carboxylase deficiency, PC<br>丙酮酸羧化酶缺乏症                                  | PC         |                          |      |      | ●    |
| 119 | Short chain hydroxy acyl-CoA dehydrogenase deficiency, SCHAD<br>短鏈羧基醯基輔酶 A 脫氫酶缺乏症 | HADH       |                          |      |      | ●    |
| 120 | Short-chain acyl-CoA dehydrogenase deficiency, SCAD<br>短鏈醯輔酶A去氫酶缺乏症               | ACADS      |                          |      |      | ●    |
| 121 | Tyrosine hydroxylase deficiency<br>(Segawa syndrome)<br>酪胺酸羥化酶缺乏症 (瀨川氏症)          | TH         |                          |      |      | ●    |
| 122 | Tyrosinemia Type 1, TYRSN1<br>酪胺酸血症第 1 型  | FAH        |                          |      |      | ●    |

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|-----|---|-----------------|--------------------------|------|------|------|
| 123 | Tyrosinemia Type 2, TYRSN2<br>酪胺酸血症第 2 型  | TAT             | Metabolic Disorders 代謝疾病 |      |      | ●    |
| 124 | Tyrosinemia Type 3, TYRSN3<br>酪胺酸血症第 3 型  | HPD             |                          |      |      | ●    |
| 125 | Vitamin D-dependent rickets<br>維生素 D 依賴型佝僂病                                       | VDR             |                          |      |      | ●    |
| 126 | Wilson disease<br>威爾森氏症   | ATP7B           |                          |      |      | ●    |
| 127 | Cyclic neutropenia<br>週期性嗜中性白血球減少症  | ELANE           | Blood Disorders 血液疾病     |      |      | ●    |
| 128 | Severe congenital neutropenia<br>(Neutropenia, severe congenital)<br>嚴重型先天性白血球減少症 |                 |                          | HAX1 |      |      |
| 129 | Hereditary hemorrhagic telangiectasia<br>遺傳性出血性之血管擴張症                             | ACVRL1<br>SMAD4 |                          |      |      | ●    |
| 130 | Hereditary spherocytosis type 1<br>遺傳性球形紅血球增多症第 1 型                               | ANK1            |                          |      |      | ●    |
| 131 | Hereditary spherocytosis type 2<br>遺傳性球形紅血球增多症第 2 型                               | SPTB            |                          |      |      | ●    |
| 132 | Hereditary spherocytosis type 3<br>遺傳性球形紅血球增多症第 3 型                               | SPTA1           |                          |      |      | ●    |



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|-----|---|------------|----------------------------------|------|------|------|
| 133 | Hereditary spherocytosis type 4<br>遺傳性球形紅血球增多症第 4 型               | SLC4A1     | Blood Disorders 血液疾病             |      |      | ●    |
| 134 | Hereditary spherocytosis type 5<br>遺傳性球形紅血球增多症第 5 型               | EPB42      |                                  |      |      | ●    |
| 135 | Achondroplasia<br>軟骨發育不全症   | FGFR3      |                                  |      |      | ●    |
| 136 | Hypochondroplasia<br>次軟骨發育不全症                                     |            |                                  |      |      | ●    |
| 137 | Alagille syndrome<br>阿拉吉歐症  | JAG1       | Multi Symptom Disorders<br>多症狀疾病 |      |      | ●    |
| 138 | Alport syndrome<br>亞伯氏症候群   | COL4A3     |                                  |      |      | ●    |
|     |   | COL4A4     |                                  |      |      |      |
|     |   | COL4A5     |                                  |      |      |      |
| 139 | Apert syndrome<br>愛伯特氏症   | FGFR2      |                                  |      |      | ●    |
| 140 | Congenital insensitivity to pain with anhidrosis<br>先天性痛不敏感症合併無汗症 | NTRK1      |                                  |      | ●    |      |
| 141 | Cystic fibrosis<br>囊腫纖維症  | CFTR       |                                  |      | ●    |      |
| 142 | Familial Mediterranean fever<br>家族性地中海熱                           | MEFV       |                                  |      | ●    |      |
| 143 | Protein C deficiency<br>蛋白質 C 缺乏症                                 | PROC       |                                  |      | ●    |      |

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|-----|--|------------|----------------------------------|--------------------------------------|------|------|
| 144 | Thrombophilia due to protein S deficiency<br>蛋白質 S 缺乏症                         | PROS1      | Multi Symptom Disorders<br>多症狀疾病 |                                      |      | ●    |
| 145 | Ataxia telangiectasia<br>共濟失調微血管擴張症候群  | ATM        |                                  |                                      |      | ●    |
| 146 | Bare lymphocyte syndrome type 2<br>裸淋巴症候群第 2 型                                 | CIITA      |                                  |                                      |      | ●    |
| 147 | Bruton's Agammaglobulinemia<br>(X-linked hypogammaglobulinemia)<br>布魯頓氏低免疫球蛋白症 | BTK        |                                  |                                      |      | ●    |
| 148 | Cartilage-hair hypoplasia<br>軟骨毛髮發育不全  | RMRP       |                                  |                                      |      | ●    |
| 149 | Hyper IgE syndrome type 1<br>高免疫球蛋白 E 症候群第 1 型                                 | STAT3      |                                  | Immunodeficiency Disorders<br>免疫缺陷疾病 |      |      |
| 150 | Nijmegen breakage syndrome<br>奈梅亨破損症候群   | NBN        |                                  |                                      |      | ●    |
| 151 | Severe combined immunodeficiency, SCID<br>嚴重複合型免疫缺乏症                           | ADA        |                                  |                                      |      | ●    |
|     |  | IL2RG      |                                  |                                      |      |      |
|     |  | IL7R       |                                  |                                      |      |      |
|     |  | JAK3       |                                  |                                      |      |      |
|     |  | PTPRC      |                                  |                                      |      |      |
|     |  | ZAP70      |                                  |                                      |      |      |

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|-----|--|------------|--------------------------------------|------|------|------|
| 152 | X-linked hyper IgM syndrome<br>性聯遺傳高免疫球蛋白 M 症候群                              | CD40LG     | Immunodeficiency Disorders<br>免疫缺陷疾病 |      |      | ●    |
| 153 | Fraiser syndrome<br>Fraiser 症候群  | WT1        |                                      |      |      | ●    |
| 154 | Li-Fraumeni syndrome<br>李-佛美尼症候群   | TP53       |                                      |      |      | ●    |
| 155 | Multiple endocrine neoplasia type 1<br>多發性內分泌腫瘤第 1 型                         | MEN1       |                                      |      |      | ●    |
| 156 | Neurofibromatosis type 1<br>神經纖維瘤第 1 型                                       | NF1        |                                      |      |      | ●    |
| 157 | Nevoid basal cell carcinoma syndrome<br>(Gorlin syndrome)<br>基底細胞痣症候群(戈林症候群) | PTCH1      | Pediatric Cancers 小兒癌症               |      |      | ●    |
| 158 | Peutz-Jeghers syndrome<br>珀茨-傑格斯症候群(黑斑息肉症候群)                                 | STK11      |                                      |      |      | ●    |
| 159 | Retinoblastoma<br>視網膜母細胞瘤  | RB1        |                                      |      |      | ●    |
| 160 | Von Hippel-Lindau syndrome<br>達希伯-林道症候群(視網膜小腦脊髓血管瘤症)                         | VHL        |                                      |      |      | ●    |
| 161 | Benign familial infantile epilepsy<br>良性家族性嬰兒癲癇症                             |            |                                      |      |      | ●    |
| 162 | Familial paroxysmal kinesigenic dyskinesia<br>陣發性動作手足舞蹈徐動症                   | PRRT2      | Epilepsy 癲癇                          |      |      | ●    |

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SOFIVA Baby Scan

| 序號  | 疾病/藥物<br>Disorder/Medicine                                   | 基因<br>Gene | 類別<br>Category         | v1.0 | v2.0 | v3.0 |
|-----|--|------------|------------------------|------|------|------|
| 161 | Benign familial infantile epilepsy<br>良性家族性嬰兒癲癇症             | SCN2A      | Epilepsy 癲癇            |      |      | ●    |
|     |  | SCN8A      |                        |      |      |      |
|     |  | KCNQ2      |                        |      |      |      |
|     |  | KCNQ3      |                        |      |      |      |
| 163 | Early infantile epileptic encephalopathy<br>早期嬰兒癲癇性腦病        | KCNT1      |                        |      |      | ●    |
| 164 | Nocturnal frontal lobe epilepsy<br>夜間額葉癲癇                    |            |                        |      |      | ●    |
| 165 | Glucose transport type 1 deficiency syndrome<br>腦血管屏障葡萄糖輸送缺陷 | SLC2A1     | Muscular Diseases 肌肉疾病 |      |      | ●    |
| 166 | Pyridoxine-dependent epilepsy<br>吡哆醇依賴性癲癇                    | ALDH7A1    |                        |      |      | ●    |
| 167 | Pyridoxamine 5'-phosphate oxidase deficiency<br>吡哆胺五端磷酸氧化酶缺乏 | PNPO       |                        |      |      | ●    |
| 168 | Severe myoclonic epilepsy in infancy<br>嚴重嬰兒肌跳躍癲癇            | SCN1A      |                        |      |      | ●    |
| 169 | Tuberous sclerosis complex<br>結節性硬化症                         | TSC1       |                        |      |      | ●    |
|     |  | TSC2       |                        |      |      |      |
| 170 | Becker Muscular Dystrophy, BMD<br>貝克氏肌肉萎縮症                   | DMD        | Muscular Diseases 肌肉疾病 |      |      | ●    |
| 171 | Duchenne muscular dystrophy, DMD<br>裘馨氏肌肉萎縮症                 |            |                        |      |      | ●    |

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|-----|--|------------|------------------------------------|------|------|------|
| 172 | Spinal muscular atrophy, SMA<br>脊髓性肌肉萎縮症               | SMN1       | Muscular Diseases 肌肉疾病             |      |      | ●    |
| 173 | Aniridia<br>無虹膜症                                       | PAX6       |                                    |      |      | ●    |
| 174 | Ocular albinism type 1<br>眼睛白化症第 1 型                   | GPR143     |                                    |      |      | ●    |
| 175 | Oculocutaneous albinism type 1, OCA1<br>眼睛皮膚白化症第 1 型   | TYR        |                                    |      |      | ●    |
| 176 | Oculocutaneous albinism type 2, OCA2<br>眼睛皮膚白化症第 2 型   | OCA2       | Vision Loss 視力喪失                   |      |      | ●    |
| 177 | Oculocutaneous albinism type 4, OCA4<br>眼睛皮膚白化症第 4 型   | SLC45A2    |                                    |      |      | ●    |
| 178 | Optic atrophy type 1<br>視神經萎縮症第 1 型                    | OPA1       |                                    |      |      | ●    |
| 179 | Arrhythmic right ventricular dysplasia<br>心律失常性右心室發育不全 | TMEM43     |                                    |      |      | ●    |
| 180 | Barth syndrome<br>巴氏症候群                                | TAZ        |                                    |      |      | ●    |
| 181 | Danon disease<br>溶酶體儲積症                                | LAMP2      | Congenital Heart Defect<br>先天性心臟缺損 |      |      | ●    |
| 182 | Heterotaxy<br>臟器異位症候群                                  | ZIC3       |                                    |      |      | ●    |
| 183 | Marfan syndrome<br>馬凡氏症候群                              | FBN1       |                                    |      |      | ●    |