**پانل بیماری های پوستی**

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| **ردیف** | **نام بیماری** | **تعداد ژن** | **ژن های مورد بررسی** |
| 1 | Albinism | 8 | C10orf11, GPR143, LYST, MC1R, OCA2, SLC45A2, TYR, TYRP1 |
| 2 | Hermansky- Pudlak Syndrome | 9 | AP3B1, BLOC1S3, BLOC1S6, DTNBP1, HPS1, HPS3, HPS4, HPS5, HPS6 |
| 3 | Genetic disorders with abnormal pigmentation | 32 | ABCB6, ADAM10, ADAR, BLM, EDN3, EDNRB, ENPP1, EPG5, HAMP, HFE, HFE2, KIT, KITLG, KRT14, KRT5, LYST, MITF, MLPH, MYO5A, NF1, NF2, PAX3, POFUT1, POGLUT1, PTPN11, RAB27A, SLC40A1, SNAI2, SOX10, SPRED1, STK11, TFR2 |
| 4 | Ichthyoses and related disorders of cornification | 65 | AAGAB, ABCA12, ABHD5, ALDH3A2, ALMS1, ALOX12B, ALOXE3, AP1S1, AQP5, ATP2A2, ATP2C1, CARD14, CDSN, CERS3, CLDN1, CSTA, CTSC, CYP4F22, DSG1, DSP, EBP, ELOVL4, ENPP1, ERCC2, ERCC3, FLG, GJB2, GJB3, GJB4, GJB6, GTF2H5, JUP, KRT1, KRT10, KRT14, KRT16, KRT17, KRT2, KRT6A, KRT6B, KRT6C, KRT9, LIPN, LOR, MBTPS2, NIPAL4, NSDHL, PHYH, PNPLA1, POMP, RHBDF2, SERPINB7, SLC27A4, SLURP1, SNAP29, SPINK5, ST14, STS, SUMF1, TAT, TGM1, TGM5, TRPV3, VPS33B, WNT10A |
| 5 | Genetic epidermolysis and blistering disorders | 19 | COL17A1, COL7A1, DSP, DST, EXPH5, FERMT1, ITGA3, ITGA6, ITGB4, KRT1, KRT10, KRT14, KRT5, LAMA3, LAMB3, LAMC2, MMP1, PKP1, PLEC |
| 6 | Connective tissue disease: Ehlers- Danlos Syndrome, Marfan Syndrome, Loeys- Dietz Syndrome, Aortic Aneurysm and differential Diognoses | 44 | ABCC6, ACTA2, ADAMTS2, ALDH18A1, ATP6V0A2, ATP7A, B3GALT6, B4GALT7, CHST14, COL1A1, COL1A2, COL3A1, COL4A1, COL5A1, COL5A2, DSE, EFEMP2, ELN, FBLN5, FBN1, FBN2, FKBP14, GORAB, LTBP4, MAT2A, MFAP5, MYH11, MYLK, PLOD1, PLOD3, PRDM5, PRKG1, PYCR1, RIN2, SKI, SLC2A10, SLC39A13, SMAD3, TGFB2, TGFB3, TGFBR1, TGFBR2, TNXB, ZNF469 |
| 7 | Ectodermal Dysplasia  | 55 | ANTXR1, APCDD1, AXIN2, BANF1, BCS1L, CDH3, CDSN, CTSC, CYP26C1, DLX3, DSG4, DSP, EDA, EDAR, EDARADD, FGF10, FGFR2, FGFR3, GJA1, GJB6, GRHL2, GTF2H5, HOXC13, HR, IFT122, IFT43, KCTD1, KRT14, KRT74, KRT81, KRT83, KRT85, KRT86, LIPH, LPAR6, MPLKIP, MSX1, NFKBIA, OFD1, PIGL, PKP1, PORCN, PVRL1, PVRL4, SHOC2, SNRPE, SOX18, ST14, TP63, TRPS1, TWIST2, UBR1, WDR19, WDR35, WNT10A |
| 8 | Dyskeratosis congenital | 10 | CTC1, DKC1, NHP2, NOP10, RTEL1, TERC, TERT, TINF2, USB1, WRAP53 |
| 9 | Disorders associated with malignancy | 45 | AKT1, ATM, AXIN2, BLM, CTC1, CYLD, DDB2, DKC1, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6, ERCC8, FERMT1, FLCN, GTF2H5, MLH1, MSH2, MSH6, NF1, NF2, NHP2, NOP10, PDGFRB, PIK3CA, PMS2, POLH, PRKAR1A, PTCH1, PTEN, RECQL4, RHBDF2, RTEL1, SDHB, SDHD, STK11, TERC, TERT, TINF2, TSC1, TSC2, WRAP53, XPA, XPC |
| 10 | Disorders of the RAS/MAP kinase pathway | 23 | A2ML1, AKT3, BRAF, CBL, CCND2, HRAS, KRAS, MAP2K1, MAP2K2, NF1, NRAS, PIK3CA, PIK3R2, PTPN11, RAF1, RASA1, RASA2, RIT1, RRAS, SHOC2, SOS1, SPRED1, STAMBP |
| 11 | Vascular and lymphatic disorders | 18 | ACVRL1, CCBE1, CCM2, ENG, FAT4, FLT4, FOXC2, GATA2, GDF2, GJC2, KIF11, KRIT1, PDCD10, RASA1, SERPING1, SOX18, TREX1, VEGFC |
| 12 | Progeria syndromes | 18 | ALDH18A1, B4GALT7, BANF1, BLM, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6, ERCC8, GTF2H5, LMNA, POLD1, PTDSS1, PYCR1, RECQL4, WRN, ZMPSTE24 |
| 13 | Complete Panel- Skin Disease | 290 | A2ML1, AAGAB, ABCA12, ABCB6, ABCC6, ABHD5, ACTA2, ACVRL1, ADAM10, ADAMTS2, ADAR, AKT1, AKT3, ALDH18A1, ALDH3A2, ALMS1, ALOX12B, ALOXE3, ANTXR1, AP1S1, AP3B1, APCDD1, AQP5, ATM, ATP2A2, ATP2C1, ATP6V0A2, ATP7A, AXIN2, B3GALT6, B4GALT7, BANF1, BCS1L, BLM, BLOC1S3, BLOC1S6, BRAF, C10orf11, CARD14, CBL, CCBE1, CCM2, CCND2, CDH3, CDSN, CERS3, CHST14, CLDN1, COL17A1, COL1A1, COL1A2, COL3A1, COL4A1, COL5A1, COL5A2, COL7A1, CSTA, CTC1, CTSC, CYLD, CYP26C1, CYP4F22, DDB2, DKC1, DLX3, DSE, DSG1, DSG4, DSP, DST, DTNBP1, EBP, EDA, EDAR, EDARADD, EDN3, EDNRB, EFEMP2, ELN, ELOVL4, ENG, ENPP1, EPG5, ERCC2, ERCC3, ERCC4, ERCC5, ERCC6, ERCC8, EXPH5, FAT4, FBLN5, FBN1, FBN2, FERMT1, FGF10, FGFR2, FGFR3, FKBP14, FLCN, FLG, FLT4, FOXC2, GATA2, GDF2, GJA1, GJB2, GJB3, GJB4, GJB6, GJC2, GORAB, GPR143, GRHL2, GTF2H5, HAMP, HFE, HFE2, HOXC13, HPS1, HPS3, HPS4, HPS5, HPS6, HR, HRAS, IFT122, IFT43, ITGA3, ITGA6, ITGB4, JUP, KCTD1, KIF11, KIT, KITLG, KRAS, KRIT1, KRT1, KRT10, KRT14, KRT16, KRT17, KRT2, KRT5, KRT6A, KRT6B, KRT6C, KRT74, KRT81, KRT83, KRT85, KRT86, KRT9, LAMA3, LAMB3, LAMC2, LIPH, LIPN, LMNA, LOR, LPAR6, LTBP4, LYST, MAP2K1, MAP2K2, MAT2A, MBTPS2, MC1R, MFAP5, MITF, MLH1, MLPH, MMP1, MPLKIP, MSH2, MSH6, MSX1, MYH11, MYLK, MYO5A, NF1, NF2, NFKBIA, NHP2, NIPAL4, NOP10, NRAS, NSDHL, OCA2, OFD1, PAX3, PDCD10, PDGFRB, PHYH, PIGL, PIK3CA, PIK3R2, PKP1, PLEC, PLOD1, PLOD3, PMS2, PNPLA1, POFUT1, POGLUT1, POLD1, POLH, POMP, PORCN, PRDM5, PRKAR1A, PRKG1, PTCH1, PTDSS1, PTEN, PTPN11, PVRL1, PVRL4, PYCR1, RAB27A, RAF1, RASA1, RASA2, RECQL4, RHBDF2, RIN2, RIT1, RRAS, RTEL1, SDHB, SDHD, SERPINB7, SERPING1, SHOC2, SKI, SLC27A4, SLC2A10, SLC39A13, SLC40A1, SLC45A2, SLURP1, SMAD3, SNAI2, SNAP29, SNRPE, SOS1, SOX10, SOX18, SPINK5, SPRED1, ST14, STAMBP, STK11, STS, SUMF1, TAT, TERC, TERT, TFR2, TGFB2, TGFB3, TGFBR1, TGFBR2, TGM1, TGM5, TINF2, TNXB, TP63, TREX1, TRPS1, TRPV3, TSC1, TSC2, TWIST2, TYR, TYRP1, UBR1, USB1, VEGFC, VPS33B, WDR19, WDR35, WNT10A, WRAP53, WRN, XPA, XPC, ZMPSTE24, ZNF469 |