

~~What is c~~Claimsed is:

1. A health risk information management device comprising:

a predicted health risk information acquisition unit which acquires information about predicted health risks ~~of a user~~ which includes information about diseases that a user may develop in the future and information about prediction of the onset of each disease; ~~and~~

a cultured cell production determination unit which determines ~~whether or not to produce cultured cells derived from the user based on the information on the predicted health risks~~ type of somatic cells associated with the disease which is judged to have a high possibility of developing in the future identified based on the information about prediction of the onset, as type of somatic cells to be produced from cultured cells derived from the user; and

a recommended test detail determination unit which determines an experiment to confirm whether symptoms of the disease which is judged to have a high possibility of developing in the future appears, as a test to be performed using somatic cells produced from cultured cells derived from the user.

2. The health risk information management device according to claim 1, wherein the predicted health risk information acquisition unit acquires information about predicted health risks based on information on genetic testing of the user.

~~3. The health risk information management device according to claim 1 or 2, further comprising a somatic cell type determination unit which determines a type of somatic cells to be produced from cultured cells derived from the user based on the information on the predicted health risks.~~

~~4. The health risk information management device according to claim 3, further comprising a recommended test detail determination unit which determines~~

~~details of tests to be performed using somatic cells produced from cultured cells—
derived from the user based on the information on the predicted health risks.~~

~~53.~~ The health risk information management device according to claim ~~41~~,
further comprising:

a somatic cell production instruction unit which transmits a somatic cell
production instruction to a system which manages the cell production; and

a test result providing unit which provides, to the user, results of the tests
conducted using produced somatic cells.

~~64.~~ The health risk information management device according to claim ~~53~~,
further comprising

a cell production necessity confirmation unit which provides, to the user,
information of the somatic cells to be produced, and accepts a response to whether
production of somatic cells is desired or not,

wherein when an affirmative response that the production of somatic cells is
desired is accepted, the somatic cell production instruction unit transmits a
production instruction of the somatic cells to the system which manages the
production of the somatic cells.

~~75.~~ The health risk information management device according to claim ~~64~~,
wherein the cell production necessity confirmation unit accepts a response to
whether production of the cultured cells is desired or not.

~~86.~~ The health risk information management device according to claim ~~53~~,
further comprising a health risk treatment information providing unit which provides
information about ~~preventive measures against the predicted health risks of the user—
based on the test results and countermeasures when predicted health risks occur at~~

least one of treatment and prevention methods for the disease which is judged to have a high possibility of developing in the future which are validated using somatic cells produced from cultured cells derived from the user.

~~97.~~ The health risk information management device according to claim ~~86~~, wherein the health risk treatment information providing unit provides at least either information of a drug screened by using the produced somatic cells to be effective for improvement of the predicted health risks, and information on drug toxicity and responsiveness to the drag.

~~408.~~ The health risk information management device according to claim ~~86~~, wherein the health risk treatment information providing unit provides information on type of somatic cells to be produced from cultured cells derived from the user based on the test results.

~~419.~~ The health risk information management device according to claim ~~86~~, wherein the health risk treatment information providing unit provides information of somatic cells to be produced and preserved by the user for the future based on the test results, a recommended production time, and numerical information on an effect of producing the somatic cells.

~~4210.~~ The health risk information management device according to claim ~~86~~, wherein the health risk treatment information providing unit provides information—~~about the cultured cells to be produced and preserved by the user based on the test results~~ that it is effective to stock the cultured cells derived from the user, if it is confirmed based on the results of the test that effective treatment can be performed using the cultured cells derived from the user when the disease develops.

~~4311.~~ The health risk information management device according to claim ~~86~~, wherein the health risk treatment information providing unit ~~predicts a period before occurrence of the health risks based on the test results, and provides information on required treatment costs and a payment plan according to the period before the occurrence~~ provides information on required treatment costs and a payment plan of the treatment costs calculated based on the expected time to onset of the disease, validated using somatic cells produced from cultured cells derived from the user.

~~4412.~~ The health risk information management device according to claim 1, further comprising
a donor candidate extraction unit which extracts HLA homozygous users as donor candidates based on information on HLA types of users,
wherein based on whether a user is HLA homozygous or not, the cultured cell production determination unit determines whether to produce cultured cells derived from the user or not.

~~4513.~~ The health risk information management device according to claim ~~4412~~, further comprising:
a recipient information acquisition unit which acquires information on an HLA type of a recipient who hopes donation of somatic cells from a donor whose HLA type is compatible; and
an HLA compatibility determination unit which extracts donor candidates whose HLA type is compatible with the recipient from among extracted HLA-homozygous donor candidates.

~~4614.~~ The health risk information management device according to claim ~~4513~~, further comprising a compatibility information providing unit which provides, to the recipient, results of compatibility verification performed by using immune cells

derived from blood of the recipient and iPS cells of donor candidates whose HLA type is compatible with the recipient or somatic cells derived from the iPS cells.

~~47~~15. The health risk information management device according to claim ~~44~~12, further comprising a number-of-compatible person calculation unit which calculates the number of recipients whose HLA type is compatible with each of donor candidates.

~~48~~16. The health risk information management device according to claim ~~44~~12, further comprising a donor cell production management unit which calculates how many cultured cells derived from each of donor candidates are needed based on the number of recipients whose HLA type is compatible.

~~49~~17. The health risk information management device according to claim ~~45~~13, wherein the HLA compatibility determination unit extracts cultured cells having compatible HLA type from among preserved cultured cells based on information on HLA types of users.

~~20~~18. The health risk information management device according to claim ~~45~~13, wherein when a predetermined number of HLA types is compatible among a plurality of HLA types, the HLA compatibility determination unit determined to be HLA-type compatible.

~~24~~19. The health risk information management device according to any one of claims 1 to ~~20~~18, wherein cultured cells derived from the cells are stem cells.

~~22~~20. A health risk information management method comprising:
a step of acquiring information about predicted health risks ~~of a user~~ which

includes information about diseases that a user may develop in the future and information about prediction of the onset of each disease; and

a step of determining ~~whether or not to produce cultured cells derived from the user based on the information on the predicted health risks~~ type of somatic cells associated with the disease which is judged to have a high possibility of developing in the future identified based on the information about prediction of the onset, as type of somatic cells to be produced from cultured cells derived from the user; and

a step of determining an experiment to confirm whether symptoms of the disease which is judged to have a high possibility of developing in the future appears, as a test to be performed using somatic cells produced from cultured cells derived from the user.

2321. A program causing a computer to function as:

a predicted health risk information acquisition unit which acquires information about predicted health risks ~~of a user~~ which includes information about diseases that a user may develop in the future and information about prediction of the onset of each disease; and

a cultured cell production determination unit which determines ~~whether or not to produce cultured cells derived from the user based on the information on the predicted health risks~~ type of somatic cells associated with the disease which is judged to have a high possibility of developing in the future identified based on the information about prediction of the onset, as type of somatic cells to be produced from cultured cells derived from the user; and

a recommended test detail determination unit which determines an experiment to confirm whether symptoms of the disease which is judged to have a high possibility of developing in the future appears, as a test to be performed using somatic cells produced from cultured cells derived from the user.