Fig. 1

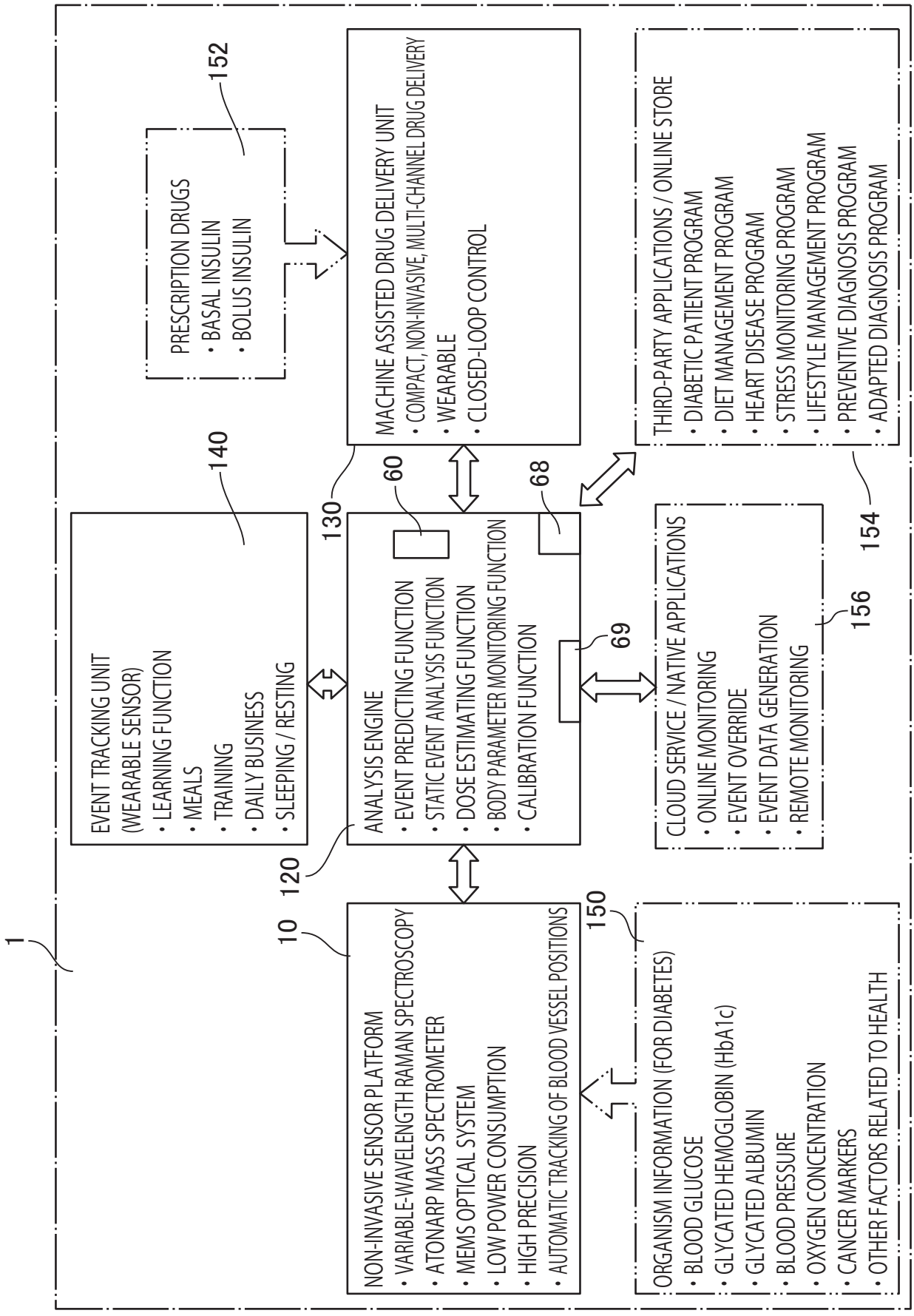

1
10
NON-INVASIVE SENSOR PLATFORM
• VARIABLE-WAVELENGTH RAMAN SPECTROSCOPY
• ATONARP MASS SPECTROMETER
• MEMS OPTICAL SYSTEM
• LOW POWER CONSUMPTION
• HIGH PRECISION
• AUTOMATIC TRACKING OF BLOOD VESSEL POSITIONS
120
ANALYSIS ENGINE
• EVENT PREDICTING FUNCTION
• STATIC EVENT ANALYSIS FUNCTION
• DOSE ESTIMATING FUNCTION
• BODY PARAMETER MONITORING FUNCTION
• CALIBRATION FUNCTION
60
68
69
130
MACHINE ASSISTED DRUG DELIVERY UNIT
• COMPACT, NON-INVASIVE, MULTI-CHANNEL DRUG DELIVERY
• WEARABLE
• CLOSED-LOOP CONTROL
152
PRESCRIPTION DRUGS
• BASAL INSULIN
• BOLUS INSULIN
140
EVENT TRACKING UNIT
(WEARABLE SENSOR)
• LEARNING FUNCTION
• MEALS
• TRAINING
• DAILY BUSINESS
• SLEEPING / RESTING
150
ORGANISM INFORMATION (FOR DIABETES)
• BLOOD GLUCOSE
• GLYCATED HEMOGLOBIN (HbA1c)
• GLYCATED ALBUMIN
• BLOOD PRESSURE
• OXYGEN CONCENTRATION
• CANCER MARKERS
• OTHER FACTORS RELATED TO HEALTH
CLOUD SERVICE / NATIVE APPLICATIONS
• ONLINE MONITORING
• EVENT OVERRIDE
• EVENT DATA GENERATION
• REMOTE MONITORING
156
154
THIRD-PARTY APPLICATIONS / ONLINE STORE
• DIABETIC PATIENT PROGRAM
• DIET MANAGEMENT PROGRAM
• HEART DISEASE PROGRAM
• STRESS MONITORING PROGRAM
• LIFESTYLE MANAGEMENT PROGRAM
• PREVENTIVE DIAGNOSIS PROGRAM
• ADAPTED DIAGNOSIS PROGRAM

Fig. 2

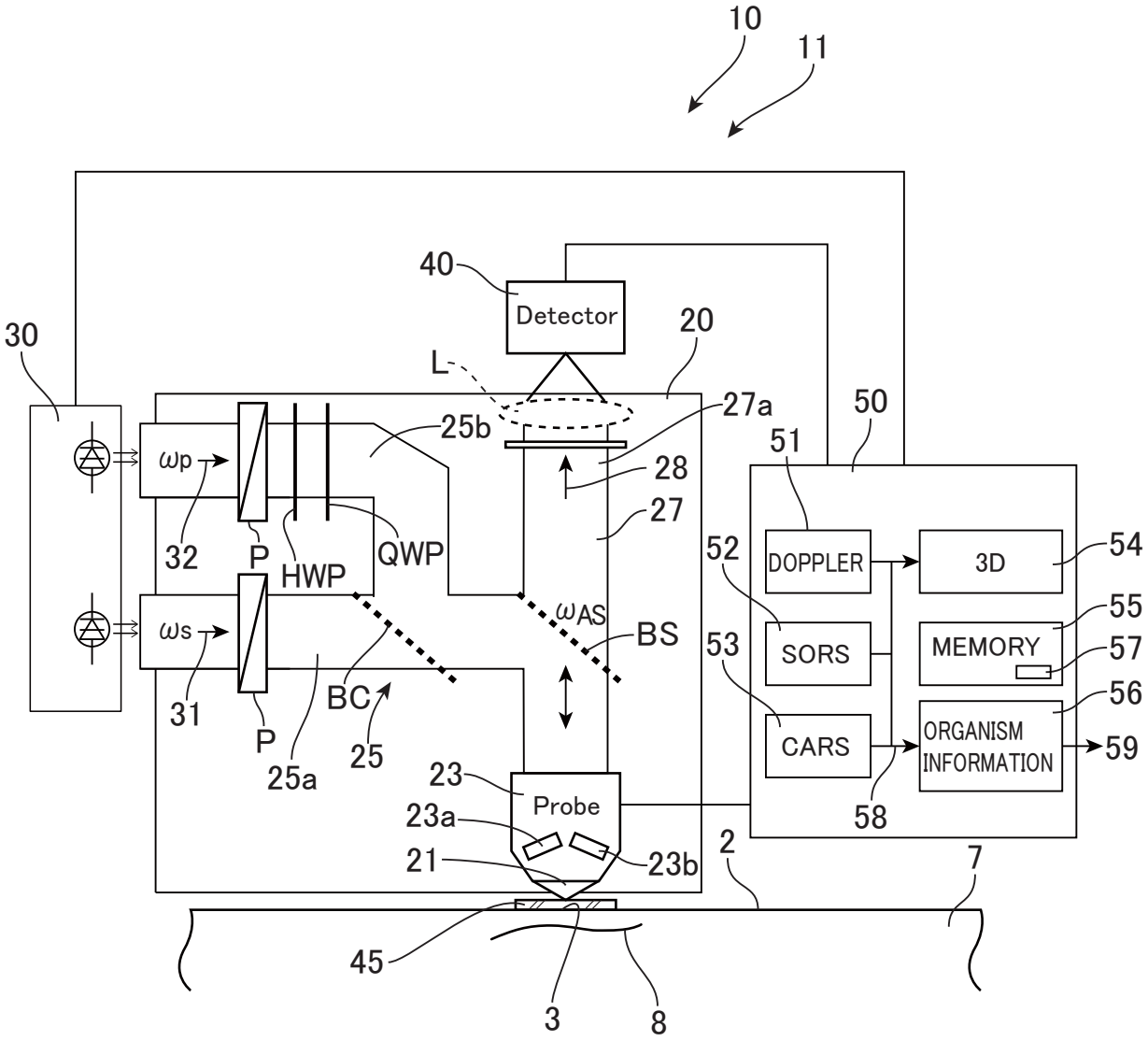

10
11
40
Detector
20
30
L
27a
50
51
25b
28
ωp
27
32
P
HWP
QWP
52
DOPPLER
3D
54
ωAS
BS
55
SORS
MEMORY
57
53
ωs
31
BC
56
CARS
ORGANISM INFORMATION
59
P
25a
25
23
Probe
58
23a
21
23b
2
7
45
3
8

Fig. 3

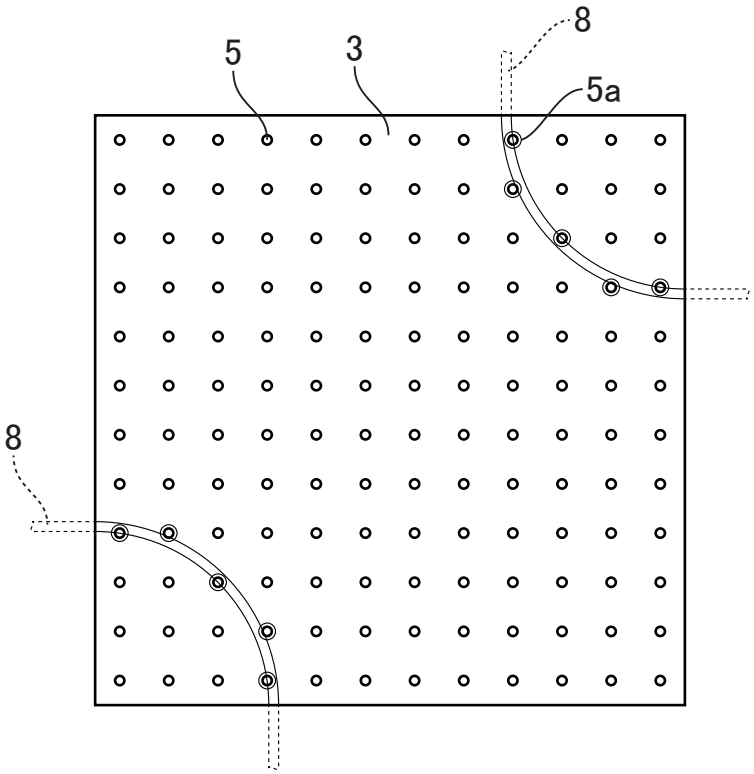


Fig. 4

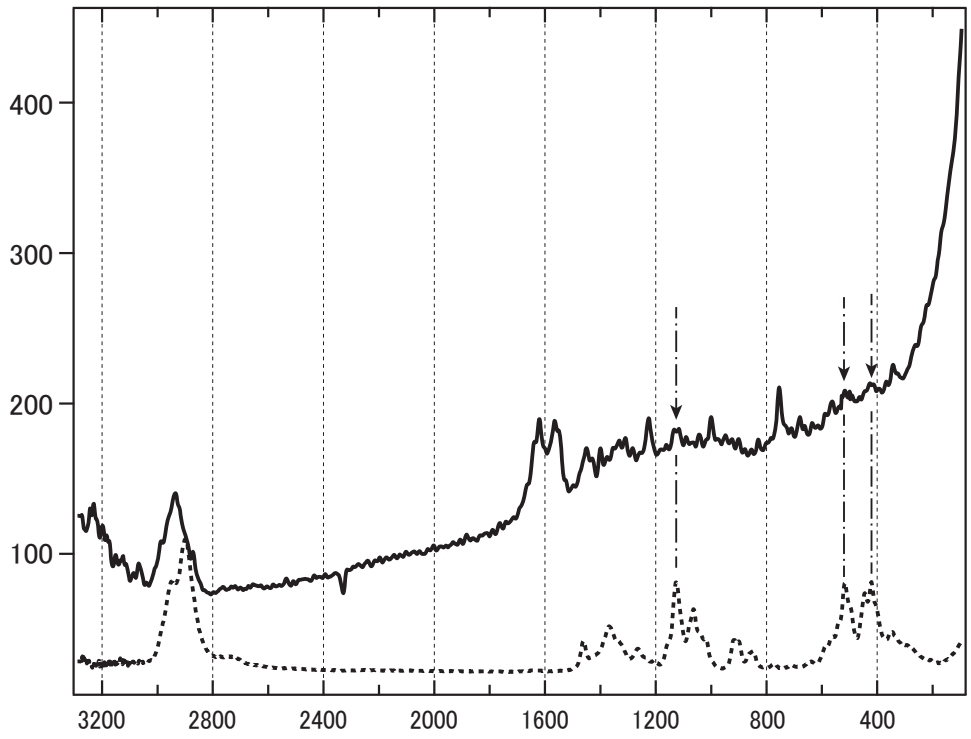


Fig. 5

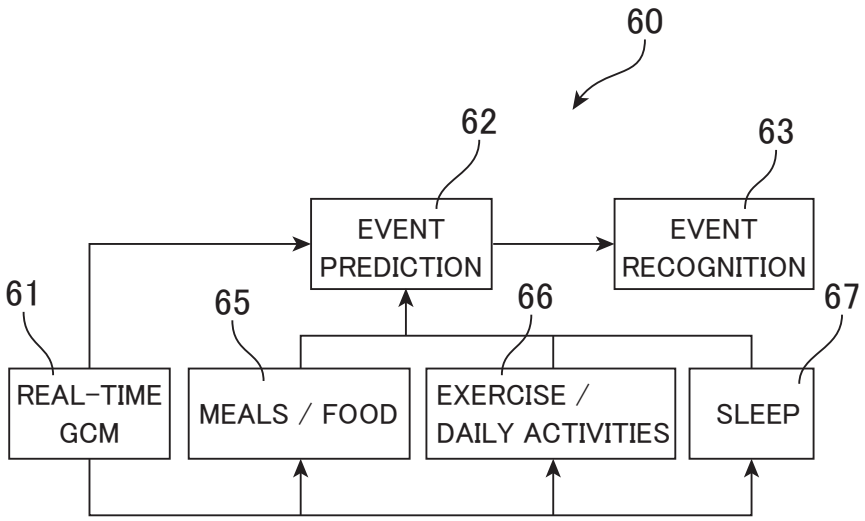

60
62
63
EVENT PREDICTION
EVENT RECOGNITION
61
65
66
67
REAL-TIME GCM
MEALS / FOOD
EXERCISE / DAILY ACTIVITIES
SLEEP

Fig. 6



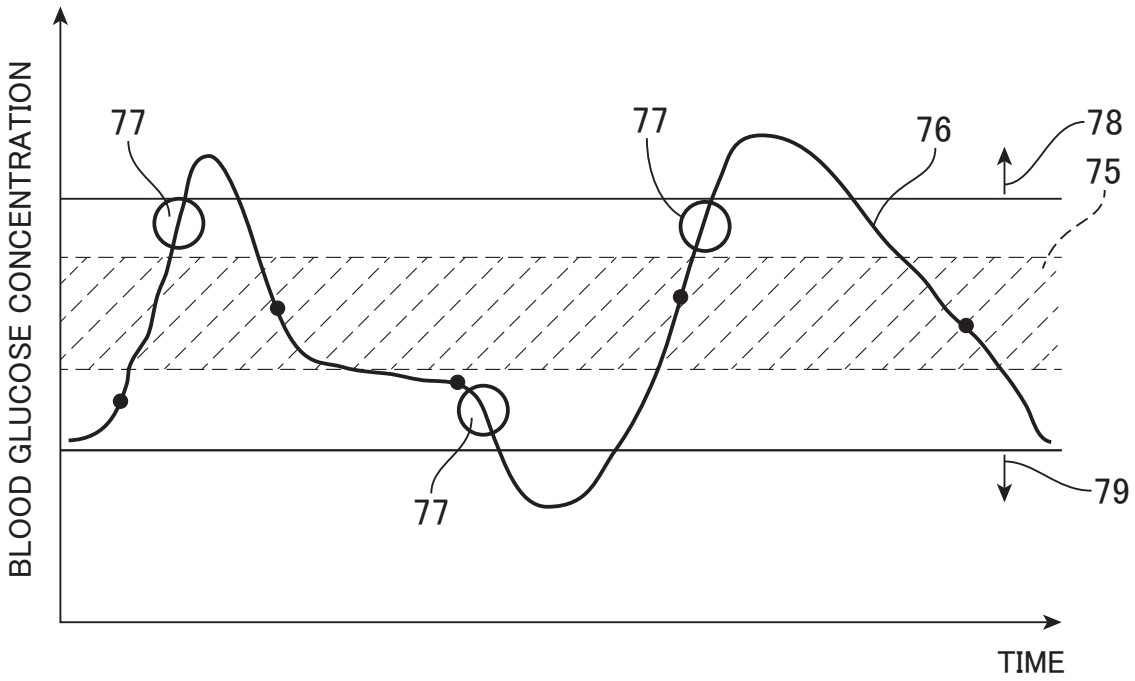
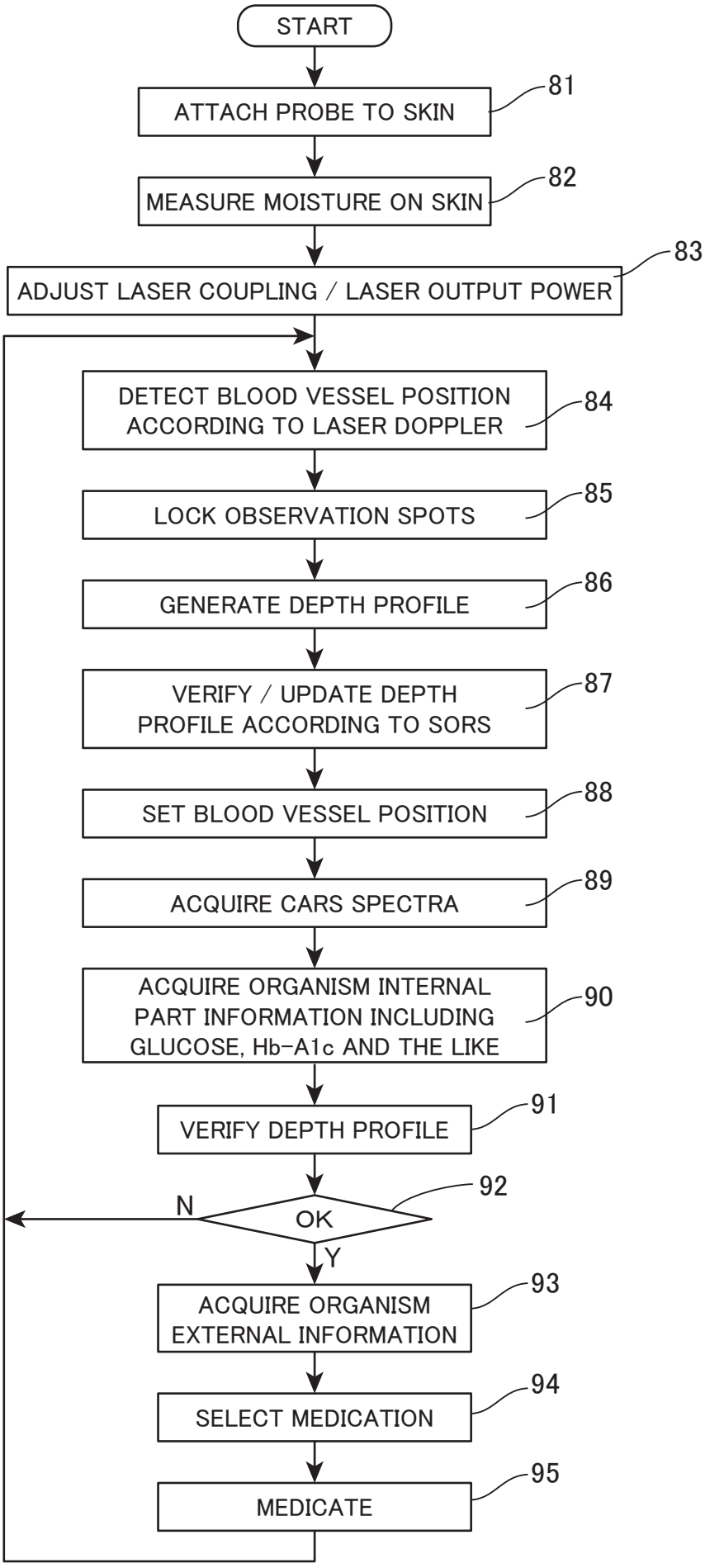


Fig. 7


START
ATTACH PROBE TO SKIN
81
MEASURE MOISTURE ON SKIN
82
ADJUST LASER COUPLING / LASER OUTPUT POWER
83
DETECT BLOOD VESSEL POSITION ACCORDING TO LASER DOPPLER
84
LOCK OBSERVATION SPOTS
85
GENERATE DEPTH PROFILE
86
VERIFY / UPDATE DEPTH PROFILE ACCORDING TO SORS
87
SET BLOOD VESSEL POSITION
88
ACQUIRE CARS SPECTRA
89
ACQUIRE ORGANISM INTERNAL PART INFORMATION INCLUDING GLUCOSE, Hb-A1c AND THE LIKE
90
VERIFY DEPTH PROFILE
91
OK
92
N
Y
ACQUIRE ORGANISM EXTERNAL INFORMATION
93
SELECT MEDICATION
94
MEDICATE
95