



November 4, 2024

Bionime Corporation  
% Feng-Yu Lee  
Principal Regulatory Consultant  
Dynamic Biotech Inc. dba IVDD Regulatory Consultant  
29122 Rancho Viejo Road, Suite 212  
San Juan Capistrano, California 92675

Re: K240637

Trade/Device Name: RIGHTEST Blood Glucose Monitoring System Max Tel  
Regulation Number: 21 CFR 862.1345  
Regulation Name: Glucose Test System  
Regulatory Class: Class II  
Product Code: NBW  
Dated: October 3, 2024  
Received: October 3, 2024

Dear Feng-Yu Lee:

We have reviewed your section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (the Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database available at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device"

(<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality System (QS) regulation (21 CFR Part 820), which includes, but is not limited to, 21 CFR 820.30, Design controls; 21 CFR 820.90, Nonconforming product; and 21 CFR 820.100, Corrective and preventive action. Please note that regardless of whether a change requires premarket review, the QS regulation requires device manufacturers to review and approve changes to device design and production (21 CFR 820.30 and 21 CFR 820.70) and document changes and approvals in the device master record (21 CFR 820.181).

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801 and Part 809); medical device reporting (reporting of medical device-related adverse events) (21 CFR Part 803) for devices or postmarketing safety reporting (21 CFR Part 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system>.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) for more information or contact DICE by email ([DICE@fda.hhs.gov](mailto:DICE@fda.hhs.gov)) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

**Joshua Balsam -S**

Joshua M. Balsam, Ph.D.

Branch Chief

Division of Chemistry

and Toxicology Devices

OHT7: Office of In Vitro Diagnostics

Office of Product Evaluation and Quality

Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K240637

Device Name

RIGHTEST Blood Glucose Monitoring System Max Tel

Indications for Use (Describe)

RIGHTEST Blood Glucose Monitoring System Max Tel is intended to be used for the quantitative measurement of glucose (sugar) in fresh capillary whole blood samples drawn from the fingertips, forearm, or palm. It is intended to be used by a single person and should not be shared.

RIGHTEST Blood Glucose Monitoring System Max Tel is intended for self- testing outside the body (in vitro diagnostic use) by people with diabetes at home as an aid to monitor the effectiveness of diabetes control. It should not be used for the diagnosis of, or screening for diabetes or for neonatal use. Alternative site testing should be done only during steady-state times (when glucose is not changing rapidly).

The RIGHTEST Blood Glucose Monitoring System Max Tel is comprised of the RIGHTEST Meter Max Tel and the RIGHTEST Blood Glucose Test Strip Max.

Type of Use (Select one or both, as applicable)

☐ Prescription Use (Part 21 CFR 801 Subpart D)

☒ Over-The-Counter Use (21 CFR 801 Subpart C)

### CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

**\*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\***

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**510(K) SUMMARY**

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR §807.92.

The assigned 510(k) number is: K240637

1. **Submitter's Identification:**

BIONIME CORPORATION

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Contact Person: \_\_Kay Wu\_\_\_\_\_

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c/o Dynamic Biotech Inc. dba IVDD Regulatory Consultant

29122 Rancho Viejo Road, Suite 212

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Contact Person: Feng-Yu Lee

Phone Number: 1-949-218-0929

Fax Number: 1-949-218-0928

Date Summary Prepared: November 1, 2024

2. **Name of the Device:**

RIGHTEST Blood glucose monitoring System Max Tel

3. **Common or Usual Name: Glucose test system**

| Product Code                                       | Classification | Regulation Section | Panel                 |
|----------------------------------------------------|----------------|--------------------|-----------------------|
| NBW; System, Test, Blood Glucose, Over-the-Counter | Class II       | 21 CFR 862.1345    | Clinical Chemistry 75 |

4. **Device Description:**

RIGHTEST Blood glucose monitoring System Max Tel consists of the following devices: Blood Glucose Meter, Blood Glucose Test Strip, Control Solution, Lancing Device and Sterile Lancets. The Blood Glucose Meter, Blood Glucose Test Strips, and Lancing Device are manufactured by BIONIME Corporation.

RIGHTEST Blood Glucose Meter Max Tel, when used with the RIGHTEST Blood Glucose Test Strips Max, quantitatively measure glucose in fresh whole blood samples from capillary. The performance of RIGHTEST Blood Glucose Monitoring System Max Tel is verified by the RIGHTEST Control Solution GC700.

RIGHTEST BGMS MAX Tel

The glucose measurement is achieved by using the amperometric detection method. The test is based on measurement of electrical current caused by the reaction of the glucose with the reagents on the electrode of the test strip. The blood sample is pulled into the tip of the test strip through capillary action. Glucose in the sample reacts with FAD-glucose dehydrogenase and the mediator. Electrons are generated, producing a current that is positive correlation to the glucose concentration in the sample. After the reaction time, the glucose concentration in the sample is displayed.

5. Intended Use:

RIGHTEST Blood Glucose Monitoring System Max Tel is intended to be used for the quantitative measurement of glucose (sugar) in fresh capillary whole blood samples drawn from the fingertips, forearm, or palm. It is intended to be used by a single person and should not be shared.

RIGHTEST Blood Glucose Monitoring System Max Tel is intended for self- testing outside the body (in vitro diagnostic use) by people with diabetes at home as an aid to monitor the effectiveness of diabetes control. It should not be used for the diagnosis of, or screening for diabetes or for neonatal use. Alternative site testing should be done only during steady-state times (when glucose is not changing rapidly).

The RIGHTEST Blood Glucose Monitoring System Max Tel is comprised of the RIGHTEST Meter Max Tel and the RIGHTEST Blood Glucose Test Strip Max.

6. Predicate Device Information:

RIGHTEST Blood Glucose Monitoring System Max Tel is substantially equivalent to the brand of RIGHTEST Blood Glucose Monitoring System Max Plus noted as 6.1.

6.1

|                 |                                                   |
|-----------------|---------------------------------------------------|
| Name:           | RIGHTEST Blood Glucose Monitoring System Max Plus |
| Device Company: | Bionime Corporation                               |
| 510(K) Number:  | K231192                                           |

# 7. Comparison to Predicate Devices:

| Models                                | RIGHTEST BGMS Max Tel<br>(New Device)                                                                                                       | RIGHTEST BGMS Max Tel<br>(Predicate Device)<br>K231192 |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Measurement Technology                | Dehydrogenase Electrochemical Sensor                                                                                                        |                                                        |
| Sample Type                           | Fresh capillary whole blood                                                                                                                 |                                                        |
| Alternative Sample Site               | The fingertips, palm, forearm.                                                                                                              |                                                        |
| Minimum Sample Volume                 | 0.75 microliter                                                                                                                             |                                                        |
| Test Time                             | 5 seconds                                                                                                                                   |                                                        |
| Control Solution                      | 3 levels (Level 1, 2, and 4)<br>RIGHTEST Control Solution GC700                                                                             |                                                        |
| Operating Conditions                  | Temperature 43 ~111 °F (6 ~ 44°C), 10 ~ 90% Relative Humidity                                                                               |                                                        |
| Meter Storage Conditions              | 14 ~131 °F (-10 ~ 55°C)                                                                                                                     |                                                        |
| Test Strip Shelf Life (After Opening) | 4 months                                                                                                                                    |                                                        |
| Test Strip Reagent                    | 1. FAD-Glucose dehydrogenase 12.4 %<br>2. Potassium Ferricyanide 49.6 %<br>3. Non-reactive Ingredients 38.0 %                               |                                                        |
| Interference                          | Ascorbic Acid ≥ 3 mg/dL<br>Conjugated Bilirubin ≥ 30 mg/dL<br>Uric Acid ≥ 12 mg/dL<br>Xylose ≥ 8 mg/dL                                      |                                                        |
| Power Saving                          | Turns off automatically after the default time 30 seconds or be set by the user. To turn off manually, press the main button for 2 seconds. |                                                        |
| Coding                                | Auto coding                                                                                                                                 |                                                        |
| Monitor                               | Color LCD                                                                                                                                   |                                                        |
| Backlight                             | No                                                                                                                                          |                                                        |
| Color                                 | black                                                                                                                                       |                                                        |
| Power Supply                          | Non-replaceable and Rechargeable Lithium battery (3.7 V)                                                                                    |                                                        |
| Memory Capacity                       | 1000 blood glucose test results with date and time                                                                                          |                                                        |
| Meter Dimension                       | 60.0 mm x 10.0 mm x 14.0 mm                                                                                                                 |                                                        |
| LCD Display Area                      | 2.8-inch touch panel                                                                                                                        |                                                        |
| Meter Weight                          | 95 ± 5g with batteries                                                                                                                      |                                                        |
| Data Transmission                     | LTE network                                                                                                                                 | NA                                                     |
| Measuring Range                       | 20 - 600 mg/dL (1.1 - 33.3 mmol/L)                                                                                                          | 50 - 550 mg/dL (2.8 - 30.6 mmol/L)                     |

RIGHTEST BGMS MAX Tel

8. Discussion of Non-Clinical Tests Performed for Determination of Substantial Equivalence is as follows:

Verification and validation of test results were evaluated to establish the performance, functionality and reliability of RIGHTEST Blood Glucose Monitoring System Max Tel. The evaluation included Hi and Lo Display, Extreme Glucose Study, Software Safety Analysis, FCC report, LTE function and Cybersecurity Evaluation specified in the FDA SMBG OTC guidance.

All laboratory studies that the acceptance criteria were met. Therefore, the performances from these laboratory studies were acceptable

| No. | Test/Validation Item                                                          |
|-----|-------------------------------------------------------------------------------|
| 1   | Hi Lo Display                                                                 |
| 2   | The Extreme Glucose Study                                                     |
| 3   | Software Safety Analysis (FCC report, LTE function, Cybersecurity Evaluation) |

Hi Lo Display

The measurement range has been adjusted, and the system displayed a notification—indicating "Hi" or "Lo"—for results that fall outside the established range.

The Extreme Glucose Study

A study conducted on glucose performance using both natural and modified blood samples. The results demonstrated compliance with the FDA's accuracy guidelines for Over-the-Counter (OTC) Self-Monitoring Blood Glucose (SMBG) systems.

Software Safety Analysis

Software adjustments were made to enable LTE functionality and adjusted the measurement range. The LTE function was validated through both FCC compliance testing and laboratory testing. As LTE functionality introduced cybersecurity considerations, we ensured compliance with the FDA's guidance on the Content of Premarket Submissions for Management of Cybersecurity in Medical Devices.

9. Conclusions:

Results of performance evaluation of RIGHTEST Blood Glucose Monitoring System Max Tel that had no impacts to BGM measurement was conducted to support substantially equivalent to the predicate device, RIGHTEST Blood Glucose Monitoring System MAX Tel.