

## Protocol Synopsis

| Study Title          | A multi-center, open, longitudinal, observational study to assess the treatment trend and the     |
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|                      | proportion of target blood pressure attainment in patients whose antihypertensive regimens are    |
|                      | changed to angiotensin II receptor blocker-based therapy  |
|                      | Study Short Title: FRESH study FimasaRtan-basEd BP Targets after Drug SwitcHing                   |
| Sponsor              | Boryung Pharmaceutical Co., Ltd.  |
| Study Objectives     | The recent hypertension clinical practice guidelines published by American College of             |
|                      | Cardiology (ACC) and American Heart Association (AHA) reduced the target BP to 130/80             |
|                      | mmHg, indicating the needs for more aggressive efforts in hypertension treatment. However,        |
|                      | studies in Koreans must be preceded before applying such new overseas guidelines; thus, this      |
|                      | study has been designed to establish clinical materials reflecting treatment setting in Korea. In |
|                      | this study, patients with uncontrolled hypertension whose antihypertensive regimens are changed   |
|                      | to ARB-based therapy (ARB monotherapy or ARB-containing combination therapy) will be              |
|                      | followed to assess the treatment trend, treatment effect, and risk of cardiovascular disease.     |
| Sample Size          | Approximately 5,000 subjects  |
| Subject              | ① Provided written consent to the use of personal information after receiving the explanation     |
| Inclusion Criteria   | of the objective, methodology, etc. of this clinical study  |
|                      | $\bigcirc$ Male or female adults $\ge$ 19 years who are diagnosed with essential hypertension     |
|                      | ③ Receiving outpatient treatment at the time of study enrollment                                  |
|                      | ④ Patients with hypertension uncontrolled by existing antihypertensive drugs (including ARB)      |
|                      | whose antihypertensive regimens decided and scheduled to be changed to ARB                        |
|                      | monotherapy or ARB-containing combination therapy (the result of the arm with a higher            |
|                      | mean BP [systolic BP preferred] when measured twice with at least a 2-minute interval in          |
|                      | both arms at the medical office on the study enrollment date, will become the reference)          |
|                      | Definition of uncontrolled hypertension: Target BP (SBP <140 mmHg and DBP <90                     |
|                      | mmHg) not achieved even after the treatment using the existing antihypertensive drugs             |
|                      | for 4 weeks or longer   |
| Subject              | ① Patients who were hospitalized or are scheduled to be hospitalized 4 weeks before or after      |
| Exclusion Criteria   | the study enrollment date   |
|                      | 2 Patients with suspected or confirmed secondary hypertension                                     |
|                      | ③ Pregnant or breast-feeding women  |
|                      | ④ Patients who received investigational product within 12 weeks or are scheduled to               |
|                      | participate in another clinical study while participating in this study                           |
|                      | 5 Patients who are determined inappropriate for participating in the study by investigators for   |
|                      | other reasons   |
| Statistical Analysis | Analysis of Primary Endpoints   |
| Methods              | Frequency and proportion of patients who attain the target BP at Week 12 after the                |
|                      | treatment regimen change will be calculated and the 95% confidence interval for the               |



| proportion will be provided.   |
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| Analysis of Safety Data  |
| Incidence and characteristics of antihypertensive drug related adverse drug reactions    |
| For adverse drug reactions (ADRs) related to antihypertensive drugs, the number of       |
| subjects, incidence, 95% confidence interval for the incidence, and number of cases will |
| be provided.   |
| Serious adverse events/adverse drug reactions  |
| For serious adverse events and serious adverse drug reactions, the number of subjects,   |
| incidence, 95% confidence interval for the incidence, and number of cases will be        |
| provided.  |