Data at ERS further demonstrates efficacy of once-daily Ultibro® Breezhaler® (QVA149) and Seebri® Breezhaler® (glycopyrronium bromide)

- New analyses in the IGNITE clinical trial program showed that QVA149 provided superior, rapid and sustained improvements in lung function and significantly reduced shortness of breath versus comparator therapies\(^1,2\)

- BLAZE study also demonstrated significant improvements in shortness of breath with QVA149 compared to tiotropium 18 mcg in patients with moderate-to-severe COPD\(^3\)

- SPARK study showed similar rates of reduction in exacerbations with once-daily Seebri® Breezhaler® (glycopyrronium bromide) and open-label tiotropium 18 mcg in patients with severe-to-very severe COPD\(^4,5\)

Tokyo, Japan – 9 September 2013: Sosei Group Corporation (“Sosei”; TSE Mothers Index: 4565) highlights that further data from the Novartis once-daily chronic obstructive pulmonary disease (COPD) clinical trial programs were presented by Novartis at the European Respiratory Society (ERS) Congress.

The new analyses of data for once-daily Ultibro® Breezhaler® (investigational QVA149 - indacaterol 85 mcg/glycopyrronium 43 mcg delivered dose, equivalent to 110 mcg/50 mcg metered dose per capsule), showed significant improvements in lung function, shortness of breath and health-related quality of life for chronic obstructive pulmonary disease (COPD) patients versus all comparators\(^1,2\).

First results from a pooled analysis of 4,891 COPD patients in the IGNITE clinical trial program (SHINE, ILLUMINATE and SPARK studies) showed that QVA149 provided superior, rapid and sustained improvements in lung function, and significantly reduced shortness of breath, compared to placebo, once-daily indacaterol maleate 150 mcg, glycopyrronium 50 mcg, open-label (OL) tiotropium 18 mcg and twice-daily salmeterol/fluticasone fixed dose combination (FDC SFC) 50 mcg/500 mcg\(^1,2\). These improvements were maintained throughout the duration of the trials\(^1,2\).

A new evaluation of patients with moderate-to-severe COPD from the BLAZE study showed that QVA149 provided significant improvements in patient-reported shortness of breath compared to tiotropium 18 mcg\(^3\).

In addition, clinical data for Seebri® Breezhaler® (glycopyrronium bromide) presented at ERS included efficacy and safety results from the SPARK study\(^4,5\). At Week 64, once-daily glycopyrronium 50 mcg showed similar efficacy to OL tiotropium 18 mcg in
reducing the rate of exacerbations, improving lung function and health-related quality of life, and reducing rescue medication use in patients with severe-to-very severe COPD \(^4\).

In analyses from the SPARK study, glycopyrronium 50 mcg (via Breezhaler\(^6\)) showed a safety profile in patients with severe-to-very severe COPD that was similar to Oliotropium 18 mcg (via HandiHaler\(^6\))\(^5\).

These results build upon the data previously presented from the glycopyrronium bromide Phase III GLOW trials and provide further evidence for Seebri\(^6\) Breezhaler\(^6\) as a once-daily LAMA option for COPD patients.

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About QVA149
Investigational QVA149 is a Fixed-Dose Combination (FDC) of two bronchodilators, Onbrez\(^\circledR\) Breezhaler\(^\circledR\) (indacaterol maleate), a long-acting beta\(_2\)-adrenergic agonist (LABA) and Seebri\(^\circledR\) Breezhaler\(^\circledR\) (glycopyrronium bromide), a long-acting muscarinic antagonist (LAMA). Both are currently used by healthcare professionals as individual therapies to treat COPD.

QVA149 received a positive opinion for approval from the European Medicine Agency’s (EMA) Committee for the Human use of Medicinal Products (CHMP) in July 2013 as a maintenance bronchodilator treatment to relieve symptoms in adult patients with COPD. QVA149 also gained endorsement for approval in August from the Drug Committee of MHLW (Ministry of Health, Labour and Welfare) for the treatment of COPD in Japan.

About the IGNITE clinical trial program
In the Phase III IGNITE clinical trial program, QVA149 is being investigated for the treatment of COPD patients as an inhaled, once-daily, FDC of indacaterol maleate and glycopyrronium bromide. IGNITE is one of the largest international clinical trial programs in COPD comprising 11 studies in total (ILLUMINATE, SHINE, BRIGHT, ENLIGHTEN, SPARK, BLAZE, ARISE, BEACON, RADIATE, LANTERN, FLAME) with more than 10,000\(^*\) patients across 52 countries\(^8\)-\(^20\). The first eight studies (ILLUMINATE, SHINE, BRIGHT, ENLIGHTEN, SPARK, BLAZE, ARISE, BEACON) completed in 2012. The studies are designed to investigate the efficacy, safety and tolerability, lung function, exercise endurance, exacerbations, shortness of breath and quality of life in patients treated with QVA149.

Results from the Phase III IGNITE trials\(^8\)-\(^18\) demonstrated statistically significant improvements in bronchodilation with QVA149 versus comparator treatments widely used as current standards of care\(^21\). Data showed that QVA149 significantly improved
bronchodilation compared to OL tiotropium 18 mcg, SFC 50 mcg/500 mcg, indacaterol maleate 150 mcg, glycopyrronium 50 mcg and placebo providing a rapid onset within five minutes, and sustained bronchodilation during a 24 hour period which was maintained for up to 26 weeks. In the IGNITE Phase III trial program, QVA149 also showed symptomatic improvements versus placebo in COPD patients. These symptomatic improvements included shortness of breath, exercise tolerance, rescue medication use and health-related quality of life.

In clinical studies, QVA149 demonstrated an acceptable safety profile with no meaningful differences between the treatment groups (placebo, indacaterol 150 mcg, glycopyrronium 50 mcg, OL tiotropium 18 mcg, SFC 50 mcg/500 mcg) in the incidence of adverse and serious adverse events.

*Total refers to all 11 IGNITE studies.

**About Seebri® Breezhaler®**

Once-daily Seebri® Breezhaler® (glycopyrronium bromide) is a novel inhaled long-acting muscarinic antagonist (LAMA; also referred to as a long-acting anticholinergic) indicated as a maintenance bronchodilator treatment to relieve symptoms in adult patients with COPD. Glycopyrronium bromide was exclusively licensed to Novartis in April 2005 by Sosei and its co-development partner Vectura. Phase III data from the GLOW 1, 2 and 3 studies demonstrated that glycopyrronium 50 mcg delivered rapid and significant sustained improvements in lung function (measured by mean FEV1) from Day 1 compared with placebo and sustained this for 24 hours over 52 weeks, and significantly improved exercise endurance versus placebo. Seebri® Breezhaler® is approved in the EU/EEA, Japan, Switzerland, Canada, Australia and a number of other countries.

All Novartis inhaled COPD portfolio products are being developed for delivery via a single-dose dry powder inhaler (SDDPI) called the Breezhaler® device which has low air flow resistance, making it suitable for patients with airflow limitation. The Breezhaler® device allows patients to hear, feel and see that they have taken the full dose correctly. Seebri®, Ultibro® and Breezhaler® are registered trademarks of Novartis.

**About COPD**

COPD is a progressive life-threatening disease that makes it hard to breathe, with symptoms that have a destructive impact on patients’ function and quality of life. It affects an estimated 210 million people worldwide and is projected to be the third leading cause of death by 2020. COPD is often considered to be a disease of later years, but estimates suggest that 50% of those with COPD are now less than 65 years old, resulting in increases in absenteeism, premature retirement and reductions in workforce participation.

**About Sosei**

Sosei is an international biopharmaceutical company anchored in Japan with a global reach. It practises a reduced risk business model by acquiring compounds from, and bringing compounds into, Japan through exploitation of its unique position within global markets.

For further information about Sosei, please visit www.sosei.com.
Forward-looking statements
This press release contains forward-looking statements, including statements about the discovery, development and commercialisation of products. Various risks may cause Sosei’s actual results to differ materially from those expressed or implied by the forward-looking statements, including: adverse results in clinical development programmes; failure to obtain patent protection for inventions; commercial limitations imposed by patents owned or controlled by third parties; dependence upon strategic alliance partners to develop and commercialise products and services; difficulties or delays in obtaining regulatory approvals to market products and services resulting from development efforts; the requirement for substantial funding to conduct research and development and to expand commercialisation activities; and product initiatives by competitors. As a result of these factors, prospective investors are cautioned not to rely on any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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