

The 2021 SHAREHOLDERS' ASSEMBLY of Biohit Oyj

Osmo Suovaniemi, Chairman of the Board

Dear shareholders of Biohit Oyj,

I warmly welcome you all to attend this shareholders' meeting of the company, which due to the coronavirus pandemic is arranged using virtual connections for the second time.

Coronavirus pandemic has caused exceptional amount of global fear, anxiety and economic damage. Until to date, some 178 million people have got infected (a year ago: 28 million) and about 3.86 million infected have died (year ago: 0.9 million).

As compared with the global figures, the situation in Finland has been reasonably good. In our country, some 94.000 people have contracted coronavirus infection, and 967 (year ago: 339) have died of the disease. In our company, only one employee has experienced a mild infection, and the staff in our Italian and UK subsidiary has remained healthy so far.

Accordingly, we have survived the corona pandemic reasonably well though, but like in previous years, suffering from negative result. Despite that, the company has not laid off its employees but we all have continued working, most of us by virtual connections. At this point, I want to warmly thank all the employees of the company for their coping with in Finland, UK and Italy.

As the chairman of the board, I have kept thinking for quite some time by now, why our operations have had in a negative results since the year 2012. The root causes date back to the year 2011, when we sold our liquid handling business abroad for 68 million euro, and these funds have been used during all the subsequent years, for example, for the development of GastroPanel and Acetium products. Importantly, the international marketing of these two has not yet been effective enough.

The GastroPanel- and Acetium-innovations of the company, as well as the ColonView-FIT- ELISA-test (for screening of colorectal cancer and its precursors) and Unified GastroPanel (for screening of gastric and esophageal cancer risks) currently in pipeline, all have a practically unlimited global unmet need. In addition to the other actions taken for the company development, the focus of reinforcement is in the international marketing, e.g. by hiring more workforce for the exports as well as for the development and maintenance of international networking.

To reassert and reinforce of the company operations, the Biohit board of directors has recently decided the following: 1. To start the ongoing reinforcement program of the company operations in collaboration with VIA-Group; 2. To find a marketing-oriented CEO, and 3. To return the peace of work to the company management, by initiating in Finland the process of arbitration, to solve the long-term disagreements continued between the Chinese partner and Biohit Oyj.

To avoid this arbitration, the parties have continued negotiations to reach a novel contract on GastroPanel distribution and partnership for Chinese markets, to solve the disagreements.

I am convinced that the reasserting- and reinforcement program of the company will improve the co-operation and effectiveness to benefit the company and its employees as well as the shareholders.

Following is a once-again reiterated discourse on the main products of the company and our view on their practically unlimited global unmet need for promotion of an early diagnosis and prevention of diseases.

GastroPanel is a blood test for timely detection of Helicobacter infection and Helicobacter-induced or autoimmune type of atrophic gastritis (mucosal atrophy), both in dyspeptic patients and in health control of asymptomatic subjects, and the test also accurately monitors the state of gastric acid output. Thus, GastroPanel discloses preventively the health risks associated with these conditions, including gastric and esophageal cancer, malabsorption of vitamin-B12, calcium, iron, magnesium and zinc, resulting in deficiencies of these elements. These deficiencies and the resulting diseases have become a major national health burden, particularly along with the aging population. B12-vitamin deficiency contributes among others to the development of dementia, depression and neurological disorders. Iron deficiency anemia is associated with fatigue, pains of muscles and joints as well as depression. Calcium deficiency contributes to osteoporosis that predisposes to bone fractures. All this information will be lost by the use of obsolete but still used UBT- and SAT- Helicobacter tests which do not detect atrophic gastritis. Despite this, both tests are often being recommended in the primary diagnosis of dyspepsia and reflux disease, without disclosing their severe shortcomings, and despite the fact that both may fail to diagnose even Helicobacter infections (Table, <https://www.biohithealthcare.com/wp-content/uploads/2019/05/Table.-GastroPanel-vs.-UBT-ja-SAT.pdf>).

In this context, it is timely to recall the text that I wrote in 2006 ([www.biohithealthcare.com/News/Readable: Dear Colleague 2006](http://www.biohithealthcare.com/News/Readable:DearColleague2006)), of which an extract here: *"The Finnish Setti-study was participated by 23.000 smoking, 50–65-year-old males (6). On the basis of the study results, it has been estimated that 250 - 300 gastric cancer deaths among >50-year-old smokers in Finland could be most likely avoided annually. This is possible by screening for atrophic gastritis and its associated risk of gastric cancer by GastroPanel-test, followed by gastroscopy for those who have atrophic gastritis."*

GastroPanel helps in timely detection of the patients who need gastroscopy and who thereby are referred for appropriate treatment. Indications for gastroscopy include the following GastroPanel-detected conditions: 1. Symptomatic Helicobacter infection after eradication; 2. Atrophic gastritis; or 3. Symptomatic high acid output (www.biohithealthcare.com/additional-information).

The leading clinical laboratory (Huslab) announces the following indications for GastroPanel biomarker testing: 1. *diagnosis of dyspepsia*, 2. *diagnosis of Helicobacter infection* and 3. *early*

detection of atrophic gastritis. – GastroPanel test is reimbursed by SIIF (Social Insurance Institution of Finland) on physician's referral www.biohithealthcare.com/test-request-form

Some 1.6 million new cases of gastric and esophageal cancer are diagnosed worldwide every year, and around 1.3 million patients die of these malignancies. During 2020 and 2021 in Finland, some 1.400 of the around 2.000 patients with incident gastric and esophageal cancer will be deceased. During the same time frame (2020 and 2021) about 1.000 patients are estimated to die of coronavirus infection, mostly elderly ([www.biohithealthcare.com / Investors/Stock Exchange Release: 2020-04-15T07:03:40Z – Does an undiagnosed atrophic gastritis \(acid-free stomach\) increase the risk of coronavirus infection, its complications and mortality particularly among elderly people?](http://www.biohithealthcare.com/Investors/Stock%20Exchange%20Release%3A%202020-04-15T07:03:40Z-%20Does%20an%20undiagnosed%20atrophic%20gastritis%20(acid-free%20stomach)%20increase%20the%20risk%20of%20coronavirus%20infection,%20its%20complications%20and%20mortality%20particularly%20among%20elderly%20people?)). Most recent research suggests that acid-free stomach might predispose the patient to more severe forms of coronavirus infection.

Coronavirus-related deaths can be effectively prevented by vaccines, but, there are no vaccines to reduce the deaths due to gastric- and esophageal cancer (i.e., against helicobacter, atrophic gastritis or high acid output), and there is no medicine for atrophic gastritis. In practice, the only rational way to reduce these cancers is an early detection of their risks by GastroPanel test: 1) an early detection of Helicobacter, atrophic gastritis and high acid output in the primary diagnosis of symptomatic patients and in health control of elderly people in particular; as well as 2) screening of the risks of gastric- and esophageal cancer by the highly informative GastroPanel test that also results in substantial savings in the life-time health care costs.

Screening of the gastric- and esophageal cancer risks as well as other risk factors by GastroPanel test will save, according to the health economic model designed by the Nordic Healthcare Group (NHG), e.g. among 10 age groups (65-74-year-old), the life-time health care costs in Finland by 800 million euro (www.biohithealthcare.com/additional-information) (<https://www.gastropanel.com/decision-makers/screening-model>) (www.biohithealthcare.com/Links: Shareholders' meeting 2020.)

Acetium: Atrophic gastritis, for which there is no vaccine or medicine, or long-term PPI treatment lead to acid-free stomach, which is associated with an increased risk of gastric cancer. Research results support the concept that this risk could be possibly reduced by eliminating carcinogenic acetaldehyde born in acid-free stomach with Acetium capsules developed by Biohit Oyj (www.acetium.com).

ColonView-FIT. Particularly among elderly people, up to 50% of upper abdominal symptoms can be of intestinal origin, and accordingly, the primary diagnosis of dyspepsia and reflux symptoms should include (in addition to GastroPanel testing) immunochemical ColonView-FIT test for detection of fecal occult blood. This immunochemical tests invented and developed in Finland under my guidance in the early 1980's, specific for human blood hemoglobin, has subsequently spread into global use (www.biohithealthcare.com/additional-information)

(www.biohithealthcare.com/history). Despite this, the national best practice guidelines launched in Finland in 2019 entitled: "Dyspepsia and reflux symptoms" still considers fecal occult blood detection not indicated in the primary diagnosis. Biohit ColonView-FIT test for detection of hemoglobin (Hb) and hemoglobin/haptoglobin (Hb/Hp) complex in the fecal sample is a new-generation test for colorectal cancer screening, detecting early-stage cancer and its precursor lesions (polyps and adenomas), thus helping in the referral of these patients for colonoscopy and eventual therapy (www.colonview.com).

Acetium lozenge. The goal is smokeless Finland 2030. Acetium lozenge developed by Biohit Oyj (www.acetium.com) promotes the reaching of this goal. The efficacy of this product has been tested in two clinical trials in Finland, the results indicating that Acetium supports smoking cessation without nicotine. Thus, Acetium lozenge does not induce nicotine-dependence and it has no known severe adverse effects (unlike currently used medicines and nicotine replacement therapy). In contrast, this product promotes oral health by its xylitol content and reduces the risk of cancer by its L-cysteine component that binds cigarette smoke-derived carcinogenic acetaldehyde in the saliva. Acetium lozenge has been granted a patent in 64 countries (EP 2 197 436 B1, "*Sucking tablet for use in reducing tobacco and/or alcohol dependence*").

As a result of the substantial community-responsible investments of Biohit Oyj and its adopted innovation and patenting strategy, the company has finalized a series of products based on domestic inventions (www.biohithealthcare.com/history : *Aggressive Innovation and Patenting Strategy – the Way to Success and National Well-Being*). These innovations responding to ever increasing global unmet need, increasing the patient safety and preventing diseases, include the above introduced GastroPanel, ColonView-FIT ja Acetium-products.

As stated in the shareholders' assembly of last year, the challenge of the company in the coming years is not the lack of products and their market prospects. The true challenge will be to strengthen the domestic and international marketing and co-operation.

Thank you for reading anew the material already delivered to you last year ([www.biohithealthcare.com/News/Readable: Shareholders' Meeting 2020 \(Osmo Suovaniemi\)](http://www.biohithealthcare.com/News/Readable:Shareholders'Meeting2020(OsmoSuvaniemi))) and here introduced once again. At the same time, I hope that you in turn would distribute the message of our company on the possibilities to promote the early detection of disease risks that saves the costs and human lives. This primary prevention also includes the possible completion of coronavirus testing by the highly informative GastroPanel test, particularly in elderly people.

Finally, I wish all the participants and other shareholders as well, good health and prosperity.

Osmo Suovaniemi

Chairman of the Board, Biohit Oyj

