Innovations 2019 3rd December 2019

Preventive program for decreasing respiratory illnesses of ŠKODA AUTO and NEXARS companies

was awarded

Honorable mention of Innovation of the year 2019





ABOUT NEXARS



- Czech innovative company producing original products and ingredients
- Our aim is to return to using natural microbial stimulants
- More info on na www.nexars.com



- Acute infections of respiratory tract (ARI) is one of the most common human illnesses and, at the same time, the most common cause of sick leave.
- Employees who come down with ARI and look for medical help are only a small part. Employees with high physical and psychological loads have their working efficiency during the ARI illnesses influenced and often leaving the illness untreated can have medical complications in the long-term.
- The current situation in therapy and prevention of ARI can be described as
 having many solutions but few with a clear effect. Antibiotics administration
 for common respiratory infections (often also for those of viral origin) leads to
 their overuse which has not only a negative impact on human microbiota but
 also the creation of antibiotic resistance.
- In 2018, the unemployment rate was low and at the same time there was a record high sick leave rate in the Czech Republic.



- **ŠKODA AUTO a.s.** has a unique position without any comparison in the Czech environment
 - It creates about 10% of CR GNP (including connected subcontractors)
 - With its 42 000 employees, even by international standards, it is a big employer
- NEXARS with the support of The Ministry of Industry and Trade cooperates
 with major research capacities (i.e. BIOCEV, Charles University, Czech
 Academy of Sciences, Food Research Institute Prague), invests a lot of energy
 and human involvement investigating the best solutions which
 consequently give preconditions for successful results such as:
 - Improving the health of the employees
 - Savings of the ŠKODA AUTO a.s. as an employer



 Preventive program represented by original biotechnological products IMUNOCOMPLEX ACUT and IMUNOCOMPLEX PLUS for all employees of ŠKODA AUTO including its agency workers





Includes microbial stimulants for optimum function and maintaining the watchfulness of the immune system

Inactivated pathogenic microorganisms acting in the port of entry of the infection



 Both the products contain internationally patented biotechnological strain "Monascus purpureus NEXARS" CCM 8668 cultivated under special conditions, output of the Ministry of Industry and Trade project



















 IMUNOCOMPLEX ACUT contains inactivated pathogenic microorganisms acting in the port of entry of the infection. The form of local administration in tablets which freely dissolve in the mouth enables reabsorption in high concentrations straight to the targeted areas of the so called Walderey's ring.



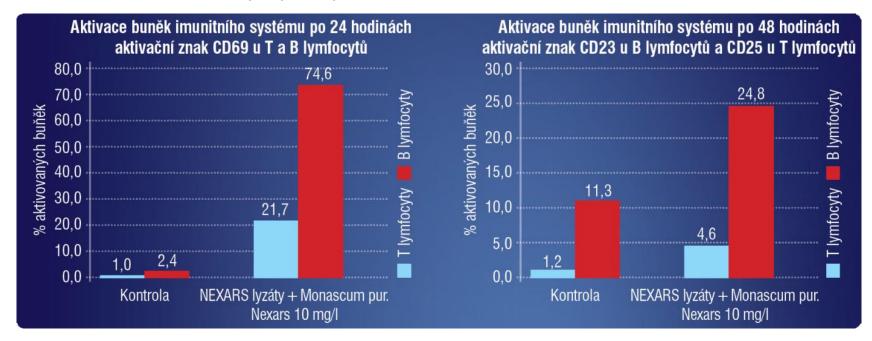
Production process of incorporation of pathogenic microbial lyophilised lysates takes place in a Clean Room Laboratory of Institute of Macromolecular Chemistry, Czech Academy of Sciences, BIOCEV Public Research Institution

Inactivation (non-viability) of pathogenic microbial lysates is confirmed for each strain and each batch by Certificate of The Institute of Microbiology of the Czech Academy of Sciences Public Research Institution.

Visualization in the cooperation with Imaging Methods Facility BIOCEV Faculty of Science Charles University

NEXARS®

 IMUNOCOMPLEX ACUT was tested on the cells of immune system from human periphery blood where activation markers CD69 were detected after 24 hours and CD 23 after 48 hours on T and B lymphocytes. In comparison with the check, there was a 20-fold increase of activation markers with the T lymphocytes and 30-fold increase of activation markers during early 24hour detection with the B lymphocytes.





- Evaluation of the prevention program was done on the basis of the Nationwide prospective evaluation of the questionnaires of satisfaction for judging possibility of prevention of acute respiratory diseases during administration of IMUNOCOMPLEX ACUT. At the same time, impacts on overall work absences were evaluated.
- In the monitored period, there were **low absences** in comparison with the sector CZ-NACE 29 Manufacturing of Motor Vehicles and also with the CR as a whole.
- ŠKODA AUTO a.s. quantified that the prevention program in the 2018/2019 season brought savings of about 50 million CZK given by the summary of work product and saved expenses for sick leaves.
- Last but not least, is that **the most valuable is the health of the employees** and quality of their life. Thus, we would like to contribute to the natural course of the illness and restore the health faster, including the complete recovery without any redundant medications (i.e. by antibiotics) and impacts on our microbiota and environment at the same time. **Our effort is documented** by our results, see the attachment citing "Statement of ŠKODA AUTO a.s. on the prevention program for decreasing respiratory illnesses in autumn and winter time of ŠKODA AUTO and NEXARS" on 24th October 2019.

Contact us for more information at: info@nexars.com



Thank you for your support

It is an honour for us to work for the best





We respect cooperation



Biotechnology and Biomedicine Centre of the Academy of Sciences and Charles University in Vestec









Motto Future is in Health is the commitment for the best solution





- ŠKODA AUTO a.s. together with C2P s.r.o. (NEXARS) realized prevention program for decreasing respiratory illnesses in autumn and winter time (2018/2019) in all the employees including agency workers.
- Prevention program consisted of preventive long-term administration of the IMUNOCOMPLEX PLUS with the target to contribute correctly to the optimum function and maintaining the watchfulness of the immune system in the period of the highest occurrence of respiratory diseases. At the same time the employees had IMUNOCOMPLEX ACUT available acting as local vaccination in the port of entry of respiratory infections which they used during the first symptoms.
- The impacts were evaluated on the basis of the following questionnaires of satisfaction: the Nationwide prospective evaluation of the questionnaires of satisfaction for judging possibility of prevention of acute respiratory diseases during administration of IMUNOCOMPLEX PLUS and Nationwide prospective evaluation of the questionnaires of satisfaction for judging possibility of influencing the course of acute respiratory diseases during administration of IMUNOCOMPLEX ACUT. At the same time, the impacts on overall work disability were evaluated.



- Based on the questionnaire investigation of IMUNOCOMPLEX PLUS, each employee of ŠKODA AUTO a.s. falls ill with a respiratory infection once or twice a year.
- Based on the questionnaire investigation of IMUNOCOMPLEX ACUT, 95% of employees of ŠKODA AUTO a.s. who fell ill and used IMUNOCOMPLEX ACUT did not have to ask a doctor for medical help:
 - 55% of those used IMUNOCOMPLEX PLUS regularly at the same time, 28.3% irregularly and 16.7% did not use it. Those who used IMUNOCOMPLEX PLUS had less feeling of tiredness and they subjectively evaluated their immunity as better.
- Employees of ŠKODA AUTO a.s. evaluated the effectiveness of IMUNOCOMPLEX ACUT as excellent in 1/3 (32.8% for sore throat and 24.4% for overall symptoms), about 1/3 as very good (36.1% for sore throat and 39.5% for overall symptoms), about 1/5 as good (18.5% for sore throat and 25.2% for overall symptoms) and only 10% as very small effectiveness or without effectiveness. 83% of these used IMUNOCOMPLEX ACUT as soon as during the first symptoms and 74.2% from all the number evaluated 3 tablets as sufficient dosage.
- Employees of ŠKODA AUTO a.s. evaluated the severity of the illness during administration of IMUNOCOMPLEX ACUT as less serious in about 2/3, 1/3 as usual and only 1.7% as more serious.
- Employees of ŠKODA AUTO a.s. evaluated the length of the disease during using of IMUNOCOMPLEX ACUT as much shorter in about 1/3 (32.5%), ½ as relatively short (55.6%), 10.3% as the same and only 1.7% as significantly longer.



• In the monitored period, there were **low absences** in comparison with the sector CZ-NACE 29 Manufacturing of Motor Vehicles and also with the CR as a whole.

• Preventive program brought savings of about 50 million CZK given by the summary of work product and saved expenses for sick leaves.



- Generally, it is possible to say in the season 2018/2018 the
 effectiveness of preventive use of dietary supplement
 IMUNOCOMPLEX PLUS with the purpose of strengthening the
 immune system and improving recovery of people with high physical
 and psychological loads combined with using of IMUNOCOMPLEX
 ACUT working as a local vaccination acting in the port of entry of the
 infection with fast activation of immune system against bacterial and
 virus diseases was confirmed.
- This program was evaluated as effective by ŠKODA AUTO a.s. and thus is continued as preventive program in the 2019/2020 season as well.

