BIOSPACE

THE PARADIGM OF PERSONALIZED HEALTHY LONGEVITY

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Al Borg Diagnostics

BIOSCIENCE INSTITUTE

BIOXPACE

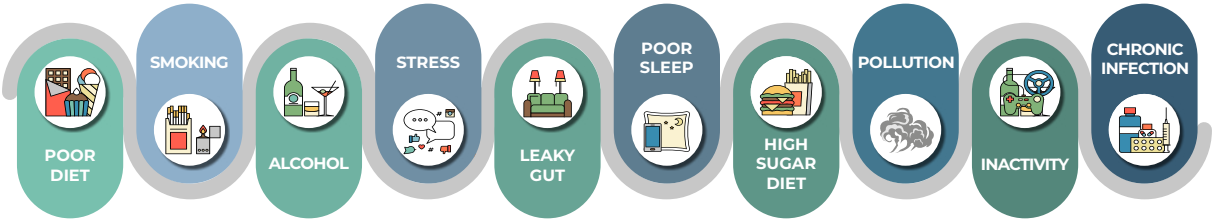
The BIOXPACE approach is proactive and preventive, seeking to extend healthspan and delay the onset of age-related diseases by intervening at the earliest signs of molecular and cellular damage. The vision involves understanding and intervening at the molecular and cellular levels where the biomolecular mechanisms that lead to aging originate.

BIOXPACE, by BIOSCIENCE INSTITUTE, is an innovative methodology focused on the accumulation of GENOTOXICITY and the management of STEM CELL CONCENTRATIONS in human organs and tissues. The protocols are designed to not only extend lifespan but also enhance the quality of life, offering your patients a path to healthier, more vibrant aging.

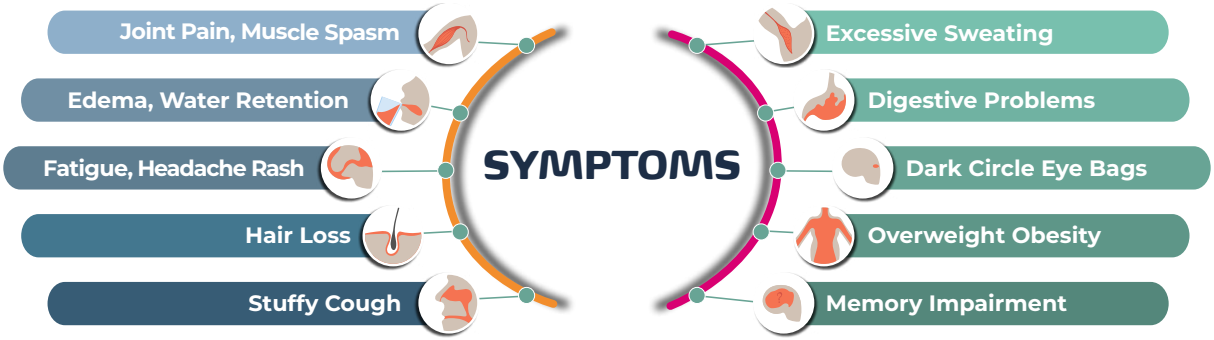
LIMITATIONS OF CURRENT LONGEVITY PROTOCOLS

While common longevity interventions improve the perception of well-being by managing the manifestations of aging, they do not treat the underlying causes. By understanding these differences and focusing on the biomolecular causes, we engage in a form of precision medicine that anticipates and potentially prevents age-related decline before symptoms manifest, enhancing longevity and quality of life.

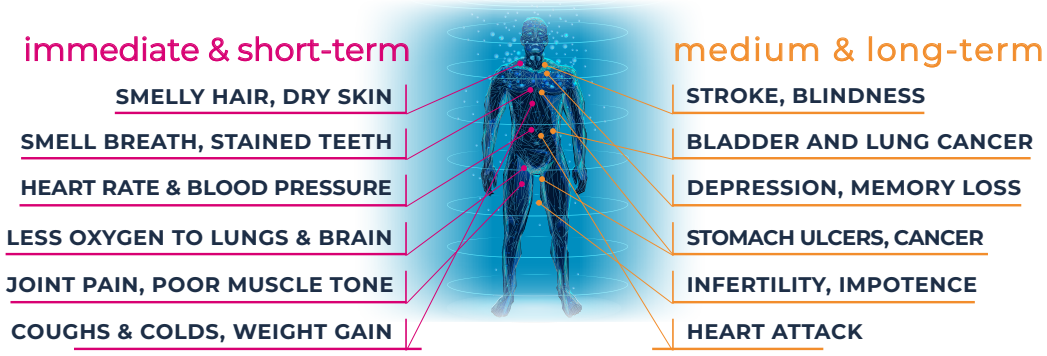
BAD HABITS THAT PROMOTE GENOTOXICITY



As we age, genotoxicity progressively builds up and stem cells become gradually exhausted which is a key contributor to aging symptoms and the decline in organ function. Therefore, overall, genotoxicity plays a significant role in aging and age-related diseases.

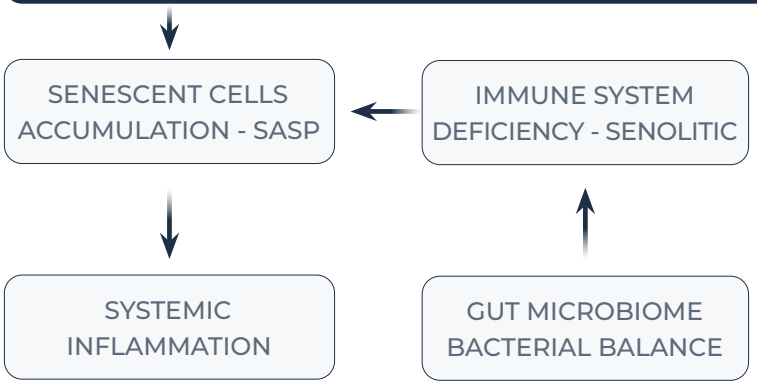


THREATS



Aging is associated with functional decline and many chronic conditions

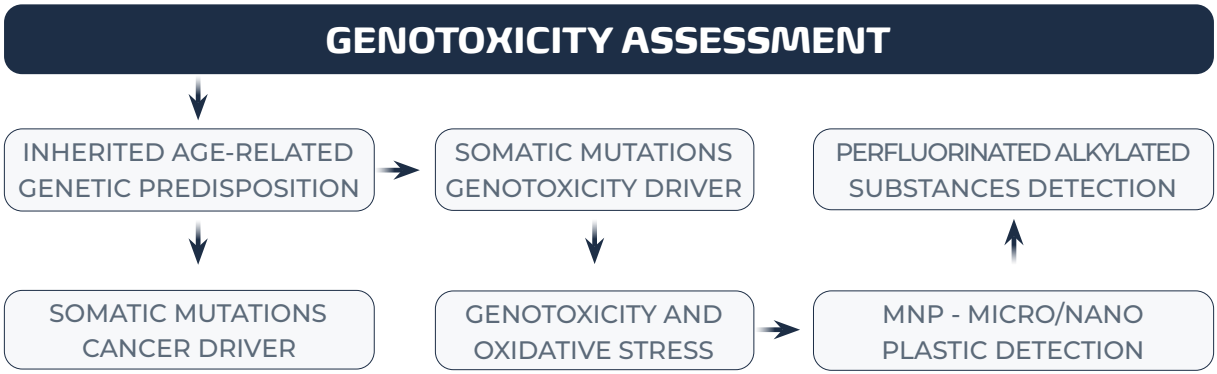
DNA DAMAGE REPAIR EFFICIENCY MONITORING



Biomolecular aging is primarily influenced by genetic and environmental interactions that lead to DNA damage. As cells and tissues age, the efficiency of DNA repair mechanisms declines, resulting in the accumulation of errors that significantly contribute to aging and age-related diseases.

Every day the DNA is subjected to 10,000 to 20,000 damages, most of which are repaired. However, unrepaired damages accumulate and lead to genotoxicity. Moreover, risk factors, particularly environmental and lifestyle influences, exacerbate this issue.

Analyzing DNA Damage Response (DDR) in anti-aging assessments is crucial for predicting the risk of rapid aging and age-related diseases. It facilitates personalized medical strategies targeting DNA repair weaknesses and enables earlier interventions, such as lifestyle changes and supplements, to enhance DNA repair mechanisms and prevent significant damage accumulation.

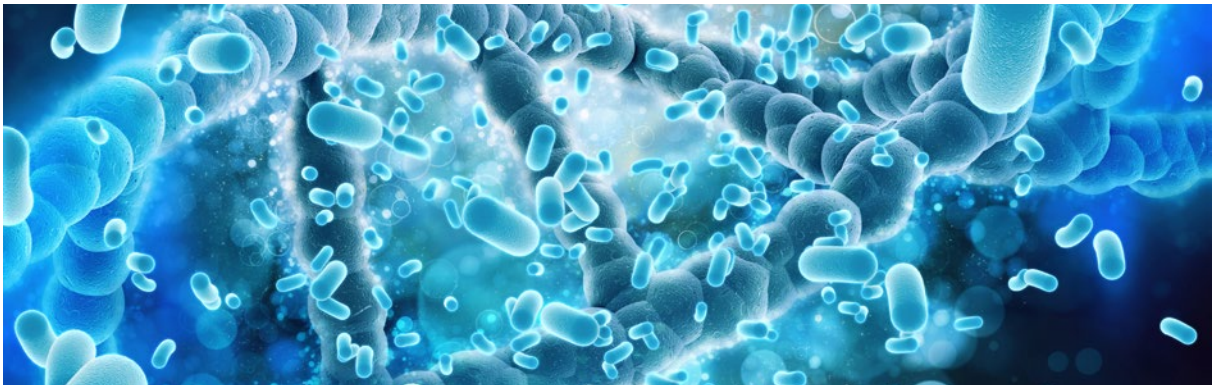


Throughout life, the physiological conditions of the individual undergo alterations due to the progressive accumulation of genotoxic damage resulting from environmental pollution, lifestyle and cellular replication.

The accumulation of genotoxicity in the organism is followed by that of senescent cells, victims of molecular damage and deprived of proliferative capacity, which give rise to systemic inflammation through the release of inflammatory signals.

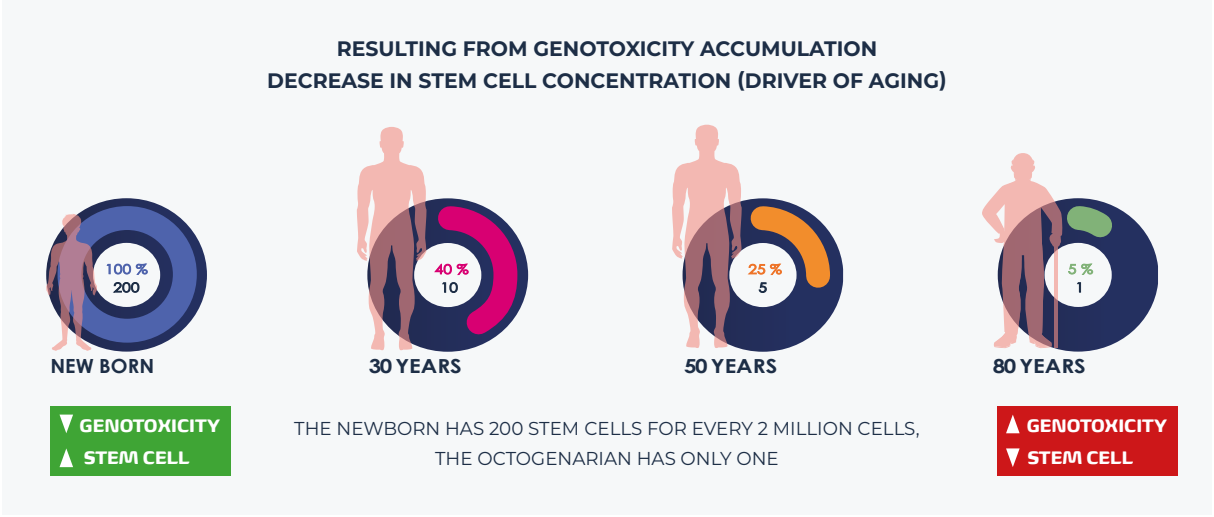
The immune system takes care of restoring a condition of normality, which has the task of removing senescent cells in order to reduce the level of inflammation and therefore the impact on the consequent degenerative processes.

Furthermore, the functionality of the immune system is synergistic with the balance of intestinal bacteria (microbiome) which influences its performance to protect the organism.



MANAGING STEM CELL CONCENTRATIONS

Stem cells play a crucial role in tissue regeneration and repair. As we age, the viability and concentration of these cells in our tissues can diminish. Moreover, Mesenchymal stem cells and exosomes hold significant promise in reducing genotoxicity and treating the aging process due to their multifaceted roles in DNA repair, antioxidative functions, and tissue regeneration ensuring safe and effective therapies for aging and age-related conditions.

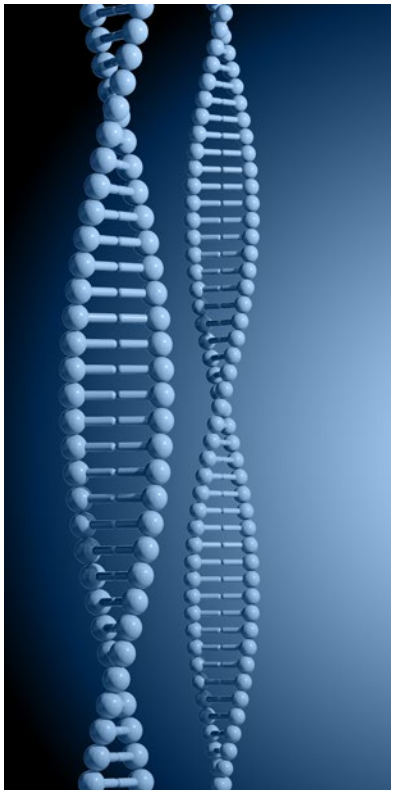


Our approach includes strategies to maintain and manage stem cell concentrations, utilizing state-of-the-art techniques in stem cell therapy and regenerative medicine. This not only supports the natural repair systems of the body but also promotes a more youthful cellular environment. MSCs can contribute to reducing genotoxicity through several pathways.

CELL THERAPIES	INDICATIONS
UMBILICAL CORD/ADIPOSE DERIVED MESENCHYMAL STEM CELLS TRANSPLANT	RESTORATION OF EXHAUSTED STEM STEM CELL RESERVE AND CONCENTRATION
UMBILICAL CORD/ADIPOSE DERIVED MESENCHYMAL S.C. EXOSOMES TRANSPLANT	STEM CELLS SIGNALING PATHWAY EXPRESSION
NATURAL KILLER CELLS CYTOKINE INDUCED KILLER CELLS TRANSPLANT	IMMUNE CLEARANCE DEPLETION OF SENESCENT CELLS - SENOLITIC ACTION

BIOXPACE IT PLATFORM

The BIOXPACE PROTOCOL includes an IT Platform that serves a vast and global customer base, because potentially can support and combine all the assessment information and therapy indications.



- ☐ CDSS - CLINICAL DECISION SUPPORT SYSTEM
- ☐ SOP - STANDARD OPERATING PROCEDURES
- ☐ QC & A - QUALITY AGREEMENT & INFORMED CONSENT FORM
- ☐ PATIENT DATA COLLECTION & MANAGEMENT
- ☐ DASHBOARD FOR DATA FOLLOW-UP AND MONITORING
- ☐ REPORT TEST ACCESS AND DOWNLOAD
- ☐ MOBILE APP FOR MEDICAL RECORD FOLLOW-UP
- ☐ GENETICIST COUNSELLORS

PREVENTIVE THERAPY

Dietary supplements can play a role in mitigating genotoxicity through the provision of compounds that can enhance DNA repair mechanisms.

BIO THERAPIES GENOTOXICITY FREE	INDICATIONS
NADH, Cistus x i. L. EGCG, Bitartrato C., Chlorella vulgaris, selenio, Vit D3, GG, Saraceno, Haematococcus	SENESCENT CELLS ACCUMULATION
Berberisaristata, Basilico s., Chlorella vulgaris, Selenium, Haematoc, Curcumapluvitalis Licopene	LOW GRADE SYSTEMIC INFLAMMATION
Spirulina platansis, Zinco, Vit D3, Pterostilbene, Triticum aestivum, Spermidina, Echinacea L. pallida N.	IMMUNE SYSTEM DEFICIENCY
Berberis Aristata, Zingiber officinale, Roscoe, Silybum marianum L., Mix Probiotics	GUT MICROBIOME BALANCE

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