

26-2015-3184 | BioNanoSim (BNS) Ltd.

[Benita Simon](#), HUJI, School of Medicine - IMRIC, School of Pharmacy- Institute for Drug Research

### Year Company was Founded

2015

### Company Founder

Prof Simon Benita

### Current CEO

Alon Moran

### About the Company

Based on decades of research by its founder and chairman, Prof. Simon Benita, a world-renowned scientist of nanotechnology, inventor of Ikervis<sup>TM</sup>, and former Head of the School of Pharmacy at the Hebrew University of Jerusalem, BNS has developed a proprietary technology platform for nano-encapsulation of drugs to improve delivery profile and therapeutic performance.

**Category:** New Therapeutic Entities (NTE) based on existing drugs, Nano-particles, topical/ocular cannabis delivery.

### About Company Products

The first product, Oxaliplatin Palmitate Acetate (OPA), is a derivative of Oxaliplatin (OXA), a powerful chemotherapeutic, platinum-based drug (platin) used in the treatment of various cancers. BNS is developing OPA-encapsulated nanoparticles (NPs) for non-melanoma skin cancers and for hard-to-treat ovarian, colon and potentially pancreatic cancers as well. OPA was shown to be significantly more potent than OXA, the original molecule, mainly due to its high effectiveness against resistant cells. In February 2018, BNS established a joint venture with Breath of Life (BOL) Pharma, one of the largest cannabis-based product developer in Israel in order to develop topical and ocular cannabis products using BNS nano-encapsulation technologies.

BNS is developing additional products which are based on the nano-encapsulation of drugs with Poly Lactic Glycolic Acid (PLGA), thereby improving the delivery profiles of small molecules and peptide-based drugs, such as nano-encapsulated CBD (cannabidiol) for topical inflammatory conditions, a topical delivery of nanoparticle cyclosporine for the treatment of atopic dermatitis (AD) and psoriasis - to name a few. Based on its PLGA NP platform, BNS is developing a NP-drug pipeline to be used in diversified therapeutic areas.

### Development Milestones

BNS is using this technology as a platform to develop and manufacture new therapeutic entities (NTEs) with improved performance of existing therapeutics. To date, the company which was founded in 2015, has signed a strategic collaboration for the development of a topical version of cyclosporine for AD and psoriasis. Having built a cGMP clinical-scale manufacturing facility in Jerusalem for nanoparticles, BNS is generating revenues and expects to launch a phase I/II clinical study with OPA, the improved version of Oxaliplatin, by mid- 2019. A cannabis-based topical treatment to anti-inflammatory conditions is expected to be tested in 2019 and launched at the market in 2020 under medical device approval. Simultaneously, additional products in the research pipeline are based on accelerated regulatory pathways with a balanced risk-reward profile.

### Target Market/Potential

BNS addresses unmet need in oncology, ophthalmology and dermatology with vast market potential.

### Patent Status

Contact for more information:



Keren-Or Amar  
VP, Business Development, Healthcare

**Yissum Research Development Company of the Hebrew University of Jerusalem**

Hi-Tech Park, Edmond J. Safra Campus, Givat-Ram, Jerusalem  
P.O. Box 39135, Jerusalem 91390 Israel  
Telephone: 972-2-658-6688, Fax: 972-2-658-6689