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Dr Alex Zhavoronkov wins BioSpectrum Asia Entrepreneur of the Year Award 2022

December 6, 2022 | News

Applying Deep Learning Experience to Drug Discovery



Asia has, indeed, become the new hub for potential growth and innovation, with no signs of losing steam. To appreciate the Asian companies and individuals for their commendable performance and achievements during Calendar Year (CY) 2021, BioSpectrum Asia Excellence Awards 2022 ceremony was held at Lavender Ball Room, Hotel Fort Canning in Singapore on December 2, 2022.

A leader in next-generation artificial intelligence (AI) technologies for drug discovery and biomarker development, Alex Zhavoronkov, PhD, the founder and Chief Executive Officer of Hong Kong headquartered startup Insilico Medicine emerged as the winner of **BioSpectrum Asia Entrepreneur of the Year Award 2022.**

Dr Zhavoronkov is also the founder of Deep Longevity, Inc, a spin-off of Insilico Medicine developing a broad range of artificial intelligence (AI)-based biomarkers of ageing and longevity servicing healthcare providers and life insurance industry. In 2020 Deep Longevity was acquired by Endurance Longevity.

Since 2015, he has invented critical technologies in the field of generative adversarial networks (GANs) and reinforcement learning (RL) for generation of novel molecular structures with the desired properties and generation of synthetic biological and patient data. He also pioneered the applications of deep learning technologies for prediction of human biological age using multiple data types, transfer learning from ageing into disease, target identification, and signalling pathway modelling.

Under his leadership Insilico raised over $300 million in multiple rounds from expert investors, opened R&D centres in six countries or regions, and partnered with multiple pharmaceutical, biotechnology, and academic institutions, nominated 7 preclinical candidates, and entered human clinical trials with AI-discovered novel target and AI-designed novel molecule.

Prior to founding Insilico, he worked in senior roles at ATI Technologies (GPU company acquired by AMD in 2006), NeuroGNeuroinformatics, Biogerontology Research Foundation. Since 2012 he published over 150 peer-reviewed research papers, and 2 books including "The Ageless Generation: How Biomedical Advances Will Transform the Global Economy" (Macmillan, 2013). He serves on the advisory or editorial boards of Trends in Molecular Medicine, Ageing Research Reviews, Ageing, Frontiers in Genetics, and founded and co-chairs the Annual Ageing Research, Drug Discovery and AI Forum (9th annual in 2022), the world's largest event on ageing in the pharmaceutical industry. He is the adjunct professor of artificial intelligence at the Buck Institute for Research on Ageing.

Dr Zhavoronkov holds two Bachelor degrees from Queen's University, a Master's in Biotechnology from Johns Hopkins University, and a PhD in Physics and Mathematics from Moscow State University.

How do you feel about winning this award?

"I am especially proud of my team and my co-CEO, D. Feng Ren, who made many of my dreams come true. Human health and productive longevity is our utmost priority and we will continue delivering breakthrough therapeutics and platforms for the benefit of the patients around the globe. It is an honour to be receiving this award in Singapore in the presence of Pavilion Capital, which has supported us from our earliest funding round."

What are your future plans/strategies as an entrepreneur, for taking your startup to the next level?

"Insilico is now a truly global company with R&D centres around the globe and a broad and rapidly-progressing pipeline of therapeutic assets some of which are in human clinical trials. Our Pharma.AI platform and software has a broad user base and multiple discovery deals with pharmaceutical companies, including our largest strategic research partnership to date with Sanofi, and recent deals with EQRx and Fosun Pharma. We will continue to work with pharma partners and to develop our own internal pipeline, which includes an AI-discovered and AI-designed lead drug candidate for idiopathic pulmonary fibrosis currently in Phase 1 trials and 30 other drugs in our pipeline for cancer, fibrosis, central nervous system diseases and COVID-19. We will also continue to expand our regional centers and will further accelerate our drug discovery efforts with the opening of a fully automated AI-run robotics lab before the end of the year. "

- ***Dr Alex Zhavoronkov, Founder and Chief Executive Officer, Insilico Medicine***



Image caption- L-R- Ravi Boratkar, Publisher & Managing Editor, BioSpectrum Asia; Dr Shaun Lim, Investments, Pavilion Capital (receiving the award on behalf of Dr Alex Zhavoronkov); and Sophie Asker, Managing Director, GCI Health