

[300] NEW STEM LTD. - HUMAN HAPLOID PLURIPOTENT STEM CELLS

Nissim Benvenisty¹, Ayelet Dilion Mashiah¹, ¹ Newstem Ltd
ABSTRACT TEMPLATE for Company Presentations

Questions for Biotech/Pharma; Medical Devices and Health IT/Digital Health categories are:

- **Investment Rational**

NewStem's technology provides unique opportunities identifying genes responsible for resistance to chemotherapeutics, as well as novel genes and molecules that can correct the phenotypes of human disorders.

Drug resistance is a major cause for failure of cancer chemotherapy and many rare genetic diseases have no treatment. NewStem's platform technology can become a game changer solving these unmet needs.

- **Business Strategy**

NewStem's Diagnostic to chemotherapy innate resistance, is developed in-house and is expected to be launched and generate revenues within 3 years, while the company intends to leverage its proprietary know-how and capabilities in drug discovery for common as well as rare genetic diseases in collaboration with leading pharmaceutical companies or promising start-ups.

- **Core Technology**

NewStem's Haploid human ES cells exhibited typical pluripotent stem cell characteristics, such as self-renewal capacity and a pluripotencyspecific molecular signature while retaining a single set of chromosomes. We demonstrated the utility of these cells as a platform for loss-of-function genetic screening. We possess an HHPSCs loss-of-function genetic screening library, with ~200,000 mutations in ~18,000 gene which allows such screening.

- **Product Profile/Pipeline**

Company's mutated HHPSCs provide a unique opportunity to identify genes responsible for resistance to chemotherapeutic agents, as well as identify novel genes and molecules that can correct the phenotypes of human disorders.

NewStem's short-long term products

1. Diagnostics - Personalized oncology; resistance to chemotherapy – In house
2. Therapeutics - Drug Discovery/Clinical Trials Support – In collaborations
3. Reproductive – Oocytes reservoir

- **What's Next?**

R&D
Preclinical / Clinicals
Organizational plans
Financial plans

NewStem is performing genetic screenings on its haploid cells and identifying genes responsible for resistance to chemotherapeutic agents creating a comprehensive library of mutated genes which confer resistance to individual chemotherapeutic agents. While in parallel seek drug development collaborations for Fragile X syndrome, Prader Willi Syndrome and other rare genetic diseases.