



Dr. John Dutcher

Founder of Mirexus Biotechnologie

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Dr. John Dutcher is one of the founders of the Guelph, Ontario based company Mirexus Biotechnologies Inc. Mirexus Biotechnologies produces phytoglycogen nanoparticles for use in cosmetics, pharmaceuticals, and the food industry. Initially discovered as a waste product while investigating how bacteria stick to surfaces, the phytoglycogen nanoparticles were found to be uniform in size. The team discovered that similar nanoparticles, referred to as PhytoSpherix[®], could be isolated from sweet corn. Because of its inherent safety profile, PhytoSpherix[®] quickly received Health Canada approval for use in food products. Year-round supply of sweet corn kernels is achieved by freezing the kernels following the annual harvest. PhytoSpherix[®] has been successful as a cosmetics ingredient because of its unique anti-ageing and moisturizing properties.

Dr. Dutcher has held several positions in Mirexus. Initially he served as Interim Chief Executive Officer (CEO), taking on the challenge of converting a nanomaterial discovered in the lab into a commercial product. This involved conducting many proof-of-principle experiments to demonstrate the use of PhytoSpherix[®] in many different applications, as well protecting intellectual property rights. Through negotiations with the University of Guelph, Dr. Dutcher arranged the transfer of intellectual property rights to Mirexus, which improved the chances of securing private investment. As Interim CEO, Dr. Dutcher was able to raise sufficient government funding to keep the company



going during the initial stages, avoiding the valley of death between government and private investment. Dr. Dutcher continued in this role until 2013 when, to help fill the team's gap in business knowledge that is crucial for securing private investment, Mirexus hired veteran business scientist Dr. Phil Whiting as President and CEO.

After Dr. Whiting joined the company, Dr. Dutcher stepped into the role of Chairman of the Board. Initially the Board was made up of a small group of Mirexus employees and investors. After the company started to grow, Mirexus was able to bring in external Board members, with diverse sets of experience and connections that would help the company to thrive. As Chairman of the Board, Dr. Dutcher had the chance to identify external members who could work well with other Board members and who were committed to helping Mirexus become successful. His role also involved running Board meetings, encouraging Board members inputs and ideas.

Two years later, Dr. Dutcher took on a new challenge as Chief Scientific Officer (CSO), while remaining a member of the Board. As CSO, he helped to shape the scientific directions of the company during this important growth phase.

Stepping back to a more collaborative role with Mirexus, Dr. Dutcher's current focus is research on PhytoSpherix® in his university lab through a NSERC Collaborative Research and Development grant with Mirexus. This role allows him to work on projects of importance to Mirexus while providing unique opportunities for his students. Students in his lab are exposed to the industrial work environment at Mirexus, conducting experiments at Mirexus on state-of-the-art equipment and giving regular research updates to Mirexus staff.