

# What Value Can Bio-based Materials Bring to the Life Science and Clinical Markets?

Johana Kuncová-Kallio

*Director, UPM Biomedicals, UPM, Alvar Aallon katu 1, PO Box 380 / 00101 Helsinki, FINLAND*

## Abstract

In the search for alternatives to synthetic or animal-based products for research and clinical applications, attention has turned to the potential offered by bio-based materials. Nanofibrillar cellulose in particular, has specific physical characteristics which make it an ideal candidate for applications such as 3D cell culture, 3D printing and wound care and other extractives such as lignin have shown promise in electrospinning. An overview of bio-based materials, specifically those derived from wood, will be presented and their potential investigated.

## Biography

Johana works in the fields of cell technology and diagnostics since 2000. The topics ranged from single cell handling and analysis, biomimetic environments for cell cultivation and stem cell differentiation, to point-of-care diagnostics, biosensors, nanoparticle characterization and surface modifications.

She acted as an evaluator for Dutch Technology Foundation and for the European Commission. She has been involved in the Finnish national initiatives of Research Tissue Bank Finland, Infrastructure for Personalized Treatments, as well as in the building of BioMediTech institute combining the medical doctors with engineers. She has established several courses and still gives lectures in the fields where biology meets technology. Besides that, she acts as a mentor and advances the skills of others in the fields of presentation skills, career development and nanotechnology start-ups.

During her career, she was involved as a business advisor, investor and/or board member in several spin-offs from universities as well as from companies. Before joining UPM, she was a CEO of a scientific instrumentation manufacturer. At UPM, she is responsible for the development of business in Life Science and Clinical sectors.

