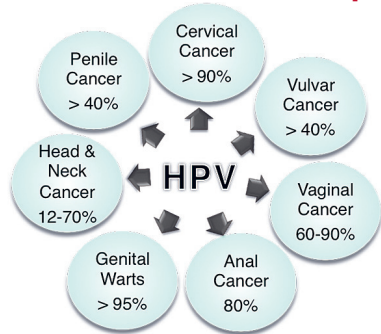
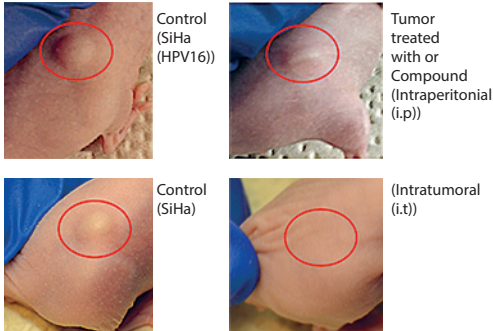




Åbo Akademi  
University

Innovations  
and spinoffs

# Novel compound(s) targeting human papilloma virus (hpv)



Percentages represent cases attributable to HPV infection

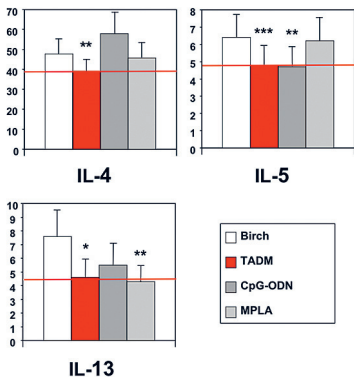
Human papilloma virus (HPV) is the leading cause of cervical cancer in the world, and has recently been identified as the main causative factor for head and neck cancers, a group of cancers showing a drastic increase in prevalence. One common denominator of the HPV genotypes is the E6 & E7 proteins, which are the root cause of HPV-mediated disease. Hence, they represent valuable targets for therapeutic intervention in HPV-driven cancers, as no specific therapies are currently available.

Researchers from Åbo Akademi University have developed novel compounds that target

the E6 and E7 viral oncoproteins. The compounds have shown no signs of toxicity to chicken embryos and nude mice, and no cardiotoxic effect. The activity of the compounds has been awarded PCT and other international patents. This promising project has already received funding from Tekes and the Novo Nordisk Foundation.

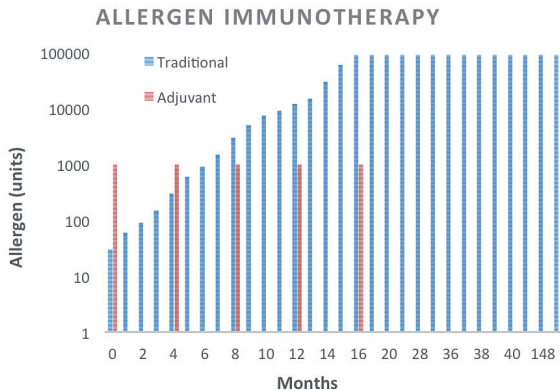
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# Oligosaccharide immunostimulatory compound for the treatment and prevention of allergy



Around 500 million people suffer from potentially treatable allergy in the world, with the allergen immunotherapy market exceeding 1 billion USD. Still, over 80% of patients discontinue the intensive, long-lasting and expensive therapy within the first year.

Researchers at Åbo Akademi University and University of Turku have synthesized a novel adjuvant, which has a superior activity profile, as well as a favorable safety profile compared to existing adjuvants. Using the novel synthetic oligosaccharide compound

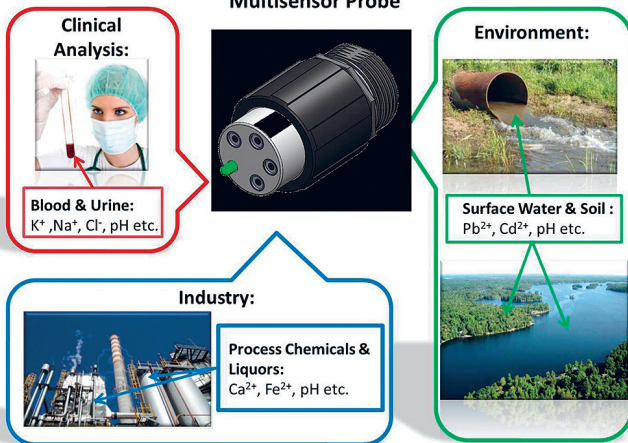


potentially reduces the amount of allergen needed for immunotherapy, and allows for shorter, more effective therapy of allergy-related diseases.

Patent applications: W02012175813 (A1)  
National Phase: US9221861 (B2), EP2723754 (A1),  
CA2842136 (A1), JP2014520136 (A), CN103814041 (A),  
AU2012273838 (A1), KR 10-2014-0108209

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# The universal solid electrochemical platform (unisep)



Electrochemical analysis plays an essential role in fields of great importance to human well being, such as health care, the food industry and environmental protection.

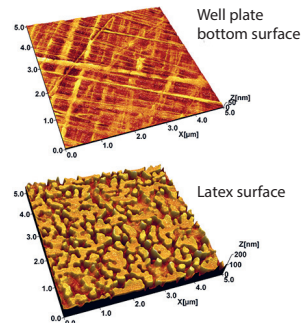
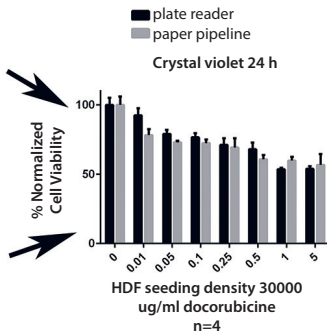
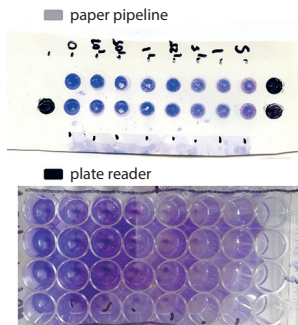
There is a clear demand for a new, reliable and versatile solid-state reference electrode, which could replace the traditional inconvenient reference electrodes with an inner filling solution. Another important need is for a robust, well performing all-solid-state system that includes both a reference electrode and indicator electrodes.

The Universal Solid Electrochemical Platform (UNISEP), developed by ÅA researchers, answers both those needs by having a unique all-solid-state composition, which

integrates the indicator electrodes and the reference electrode in one single body. The UNISEP has several advantages: it is maintenance free, easy to miniaturize, works in any position, is mechanically robust and is also significantly easier and cheaper to manufacture compared to currently existing solutions. The invention can be used in all fields of electrochemical analysis, and has potential applications in e.g. clinical analysis, environmental monitoring and quality control in the food industry.

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# Printed paper-based screening arrays for in vitro testing



Traditionally, in vitro cell culture studies have been carried out using non-degradable glass or plastic cell culture plates. In addition, optical analysis of cell growth is commonly conducted using expensive microscopes or high-throughput microplate readers. A well-known issue of growing cells on flat and hard substrates is the differing manner in which they behave compared to the environment of living tissue.

This invention, an environmentally friendly paper based screening platform, with functionalized substrates that can control cell-substrate interactions and enhance proliferation as well as other cellular processes, allows

for more physiological in vitro testing. A sensing electrode is also included on the substrate, which allows the measuring of metabolites, drug molecules, pH and ion concentrations in real time. Being able to manipulate cell fate and measure metabolic states can open up a new dimension of personalized disease treatment and screening.

Patent applications: Finland (20155608 and 20155840)  
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# EasyTrans - The privilege of choice



EasyTrans is a spinoff startup from Åbo Akademi University developing machine learning algorithms to provide cost optimized video processing solutions. Our product is an easy to use, scalable and predictable cloud based video transcoding platform helping media companies to perform video transcoding with selectable cost and performance options. It provides the freedom to select different predicted costs and performances when converting video files from one format to another.

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If you got interested in hearing more about licensing or collaboration opportunities, please be in contact.



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