

# Jan Zuidema

#### **CBO & co-founder**

**Vivomicx BV** 

Www.vivomicx.eu



### **Bilateral Meetings**

- Thursday (1:30pm 6:00pm)
- Friday (9:00am 12:00pm)

### **Description**

It is crucial to match the pharmacological effects of a new drug to the target cells in a tissue, however this is seldom accomplished at a cellular level. To assess the true effects of a drug is of particular importance if the target cells are underrepresented in an organ/tumor to be analysed. Vivomicx is able to tell you what the effects of a (new) drug are on the gene expression profiles of subsets of cells in the organ where the disease is located. These subset cells may either be the target cells for desired effects of the drug or the non-target cells to study bystander effects of undesired toxicity, thus better supporting your compounds go-no-go decisions.

We identify real biomarkers for drug efficacy to speed up your development process. Using this, you can relate true molecular effects to disease activity and the value of your biomarkers

We can validate for you the pharmacological identity of your NME in complex tissues in vivo, before your drug enters clinical testing the expression of your new putative targets in patient materials your biomarkers, identified in vitro or in vivo.

Vivomicx offers: molecular pharmacology of a NME in tissue compartments discovery of biomarkers that reflect the activity of your NME in tissue samples of pre-clinical & clinical studies target validation in complex tissue samples the real molecular effects of your NME in vivo

**Organization Type** 

Company

**Organization Size** 

1-10

**Founding Year** 

2014

**Email** 

4visionmarketing@gmail.com

Country

**Netherlands** 

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## Validated protocol for analyzing gene expression profiles in subsets of cells in complex tissues

The protocol uses laser dissection microscopy to isolate predestined cells from tissue sections and to subject their ribonucleic acid (RNA) to quantitative reverse transcription polymerase chain reaction (RT-PCR) analysis. In this way the molecular control of cell behavior in different compartments of healthy and diseased tissues can be determined. Moreover, the effects of therapeutic intervention can be analyzed at the molecular level in the cells of interest.

In general the technology allows the analysis of small groups of cells with comparable features in a complex tissue. The analysis of small groups of similar cells was until recently hampered by the low amount of material available for subsequent read-out technologies. Only recently this has changed due to technological breakthroughs which include the application of laser micro dissection to tissue analyses. This technique now routinely ensures good quality RNA for real-time RT-PCR analysis, and also allows protein based read-out techniques to be applied.

Our approach assigns the molecular basis of cell (dys)function and effects of drug treatment in complex tissue to specific cell types. This compartmentalization will provide a better insight in the true pharmacological behavior of a compound in relation to the disease status. Moreover, we have proven expertise in analyses of in vivo samples in endothelial biomedicine and vascular drug targeting research of inflammatory conditions and cancer.

We are looking for partners that are interested in expanding the application area of our technology to cover other disease areas, including cardiovascular disease and CNS. Our main expertise is in Renal disease and Oncology but we can work with any tissue.

We are also interested in co-development partners with relevant expertise to assist us in developing our technology further as a system to be integrated as a screening mechanism in the process of drug discovery & drug development.

CRO's or companies that have an advanced downstream processing system able to provide even finer output for our analysis method would also be interesting partners for us.

#### **Cooperation Offered**

- 1. Outsourcing co-operation
- 2. Technical co-operation
- 3. Other