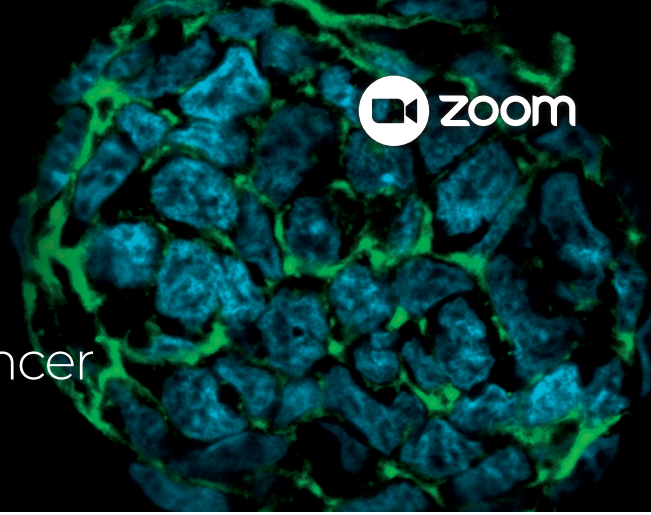
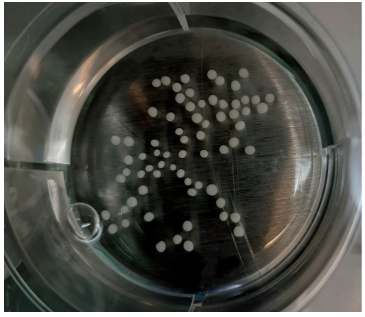
# Chrisna Gouws

**Professor, North-West University**



**Title of presentation:**

## Mini-tumours as models for anticancer evaluation of medicinal plants



**Webinar date:**
23 Sep, 2021 - 09:00 (CET) Copenhagen

**CLICK TO REGISTER!**

**Mini abstract:**
To bridge the gap between *in vitro* studies and the human *in vivo* system, we develop novel three-dimensional spheroid models to better mimic cancer cell behaviour *in vivo* when studying cancer treatments. These include colorectal, lung, nasal and skin cancer mini-tumours, which we fully characterise and validate through treatment with a standard chemotherapeutic drug.

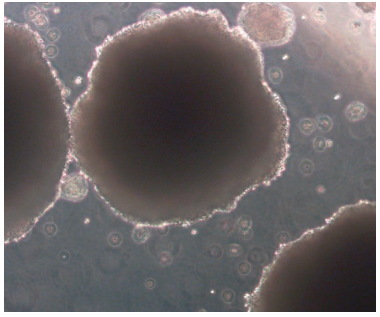
CELVIVO
STRESS-FREE 3D™

# Stephen J. Fey

**Co-founder, Professor, Chief Research Officer CelVivo Aps, Denmark**

**Title of presentation:**

## Benchmarking - the most important step in cell culture



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**Webinar date:**
30 Sep, 2021 - 09:00 (CET) Copenhagen

**CLICK TO REGISTER!**

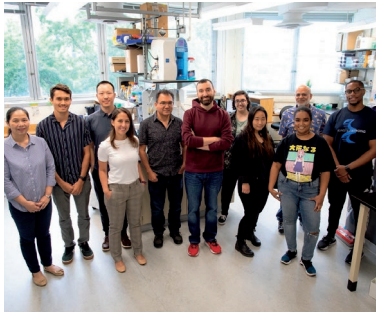

**Mini abstract:**
In this presentation, I will illustrate this benchmarking process using a human liver mimetic system. By growing cells as 3D clusters and benchmarking them against *in vivo* activity we have shown that the ultrastructure is improved, the growth rate is reduced 25-fold (to within 4-6 fold that seen *in vivo*), urea, cholesterol and ATP levels are increased to *in vivo* levels, epigenetic changes are recovered, drug metabolism is much more predictive of *in vivo* toxicity, and glucose-induced insulin resistance resembles that seen in diabetes.

# Simone Sidoli

**Professor, Albert Einstein College of Medicine**

**Title of presentation:**

## Modelling accessible heterochromatin to identify proteins and histone modifications regulating chromatin homeostasis



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**Webinar date:**
7 Oct, 2021 - 16:00 (CET) Copenhagen

**CLICK TO REGISTER!**


**Mini abstract:**
In this presentation, we will discuss how we use 3D hepatocytes to model, treat and analyze a quiescent chromatin state. To model chromatin subjected to cell stress, we induce chromatin decodensation on the cell culture by chemicals for inducing domains of reactivated heterochromatin. By using mass spectrometry-based proteomics, we identify specific histone codes benchmarking regions of decondensed chromatin, and proteins specifically reading those codes. The goal of our work is to define at the molecular level which mechanisms lead to anomalous chromatin decondensation in conditions such as aging, cancer and viral infection.

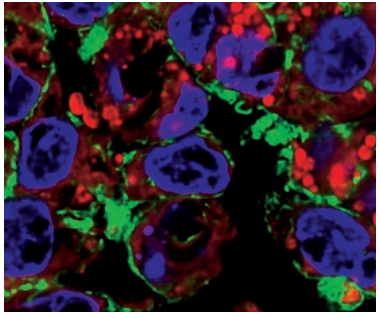
# Adelina Rogowska-Wrzesinska

**Professor, University of Southern Denmark**

zoom

**Title of presentation:**

## Understanding mechanisms of drugs toxicity using hepatocytes-based spheroids



CELVIVO
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**Webinar date:**
14 Oct, 2021 - 09:00 (CET) Copenhagen

**CLICK TO REGISTER!**

**Mini abstract:**
In this presentation, I will discuss how we use HepG2/C3A spheroids to study hepatocytes response to therapeutic-equivalent doses of APAP (5 mg APAP per mg total soluble protein). I will share tips and tricks on how to design experiments to obtain maximum sensitivity and reproducibility. I will present how advanced mass spectrometric techniques was used to quantify changes in proteins and their S-nitrosylation and S-sulfenylation levels in C3A spheroids treated with APAP, and how this approach is explored to characterize the early-stage drug response that is very often overlooked in rodent based toxicity models.